HOLDEN

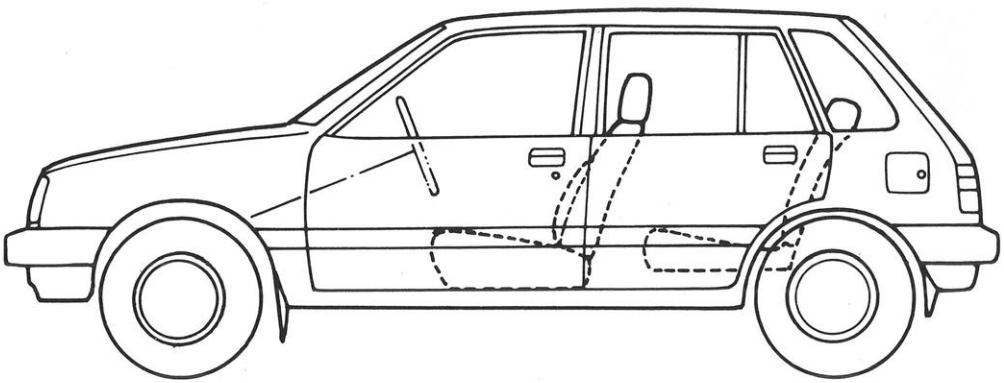
BARINA

OWNER MANUAL

MB SERIES

This owner's manual applies to the following model of the Barina MB series:

5-DOOR MODEL-8MG68



This vehicle may not comply with standards or regulations of other countries. Before attempting to register this vehicle in any other country, check all applicable regulations and make any necessary modifications.

GMH NUMBER: VS50384

FOREWORD

We thank you for choosing HOLDEN 'Barina'.

You will find in this Owner's Manual the basic information necessary for the proper use, care and maintenance of your new vehicle.

This manual should be considered a permanent part of this car. It should stay with the car when sold to provide the next owner with important operating, safety and maintenance information.

Please note, if any lubricants and additives specified in this manual are not available in Australia you should consult your HOLDEN Dealer or the Barina Service Manual for the recommended equivalents.

GENERAL MOTORS–
HOLDEN'S SALES PTY. LTD.

IMPORTANT NOTICE

Please read this manual and follow its instructions carefully.
To emphasize special information the words WARNING, CAUTION and NOTE carry special meanings and should be carefully understood.

WARNING:
The personal safety of the driver or occupant(s) may be involved. Disregarding this information could result in their injury.
CAUTION:
These instructions point out special service procedures or precautions that must be followed to avoid damaging the vehicle.
NOTE:
Special information to make maintenance easier or important instructions clearer.

Copying, quoting or reproducing any part of this manual is not permitted without explicit approval by GENERAL MOTORS-HOLDEN'S SALES PTY. LTD.

Please note that this manual applies to all models and all specifications for all respective destinations and explains all equipments including options available. Therefore, your model may have different standard features than shown in this manual.

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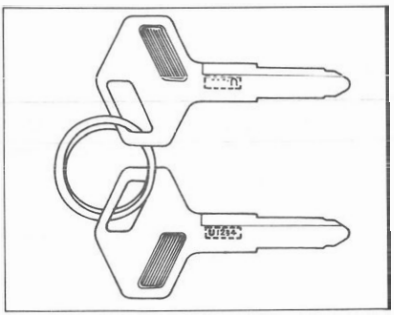
INFORMATION BEFORE DRIVING

KEY



This vehicle comes equipped with a pair of identical keys. Keep the spare key in a safe place. The key can operate the following:

- Ignition switch
- Door locks
- Fuel filler lid lock
- Hatchback lid lock

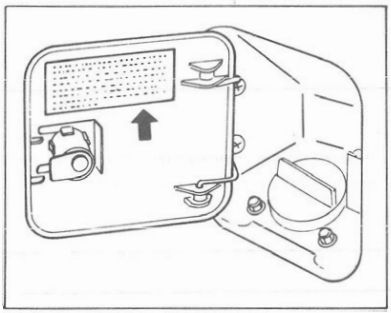
The keys are stamped with an identifying number. This number is used when making replacement keys. Please write your key number in the box provided for your future reference.

KEY NUMBER:

FUEL/FUEL FILLER

FUEL TANK CAPACITY	31 L (8.2/6.8 US/Imp gal)

There are two types of 8MG68. One requires use of unleaded or low-lead gasoline with a research octane number of 85 or higher, and the other requires use of higher than 95 R.O.N. gasoline.



For the vehicle with a CAUTION LABEL attached inside of the fuel lid, be sure to use gasoline higher than 95 R.O.N.

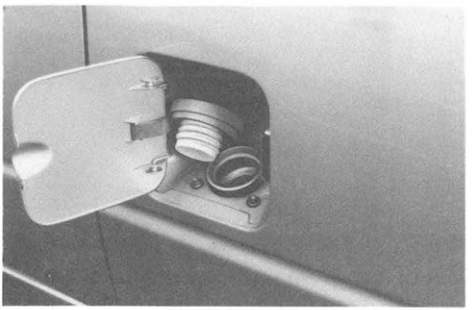
CAUTION:
Use of gasoline lower than 95 R.O.N. for the high octane gasoline vehicle (identified by a CAUTION LABEL attached inside of the fuel lid) will cause the engine to malfunction.

The fuel filler lid is located on the left side of the car. For your protection the tank can be locked. To unlock the lid, turn the key clockwise. To lock, turn the key counterclockwise.

Type 1

After unlocking, open the lid and remove the fuel tank cap by turning it counterclockwise.

Type 2



The fuel tank filler cap has a "screw-on ratcheting type" feature.

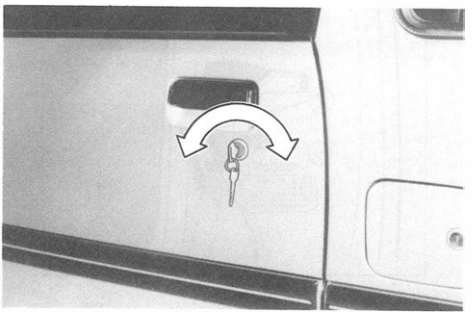
- To remove—rotate cap counterclockwise to clear the inside of the filler neck. This will allow any residual pressure to escape.
- To install—reverse this procedure and tighten cap securely until a "ratcheting", clicking sound is heard indicating cap is on properly.

CAUTION: If you need to replace the fuel cap, use only a cap specified for your model. You can get a correct replacement cap from your dealer.

CAUTION:
The fuel tank has an air space to allow for fuel expansion in hot weather. If fuel is continued to be added after the filler nozzle has automatically shut off or an initial blowback occurs, the air chamber will become full. Exposure to heat when fully fuelled in this manner will result in leakage due to fuel expansion. To prevent such fuel leakage, stop filling after the filler nozzle has automatically shut off, or when using an alternative non automatic system, initial vent blowback occurs.

DOOR LOCK

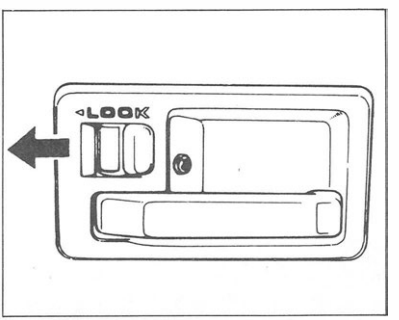
From outside



To lock the right door, insert the key and turn it clockwise. To unlock the door, turn the key counterclockwise.

To lock the left door, insert the key and turn it counterclockwise. To unlock the door, turn the key clockwise.

From inside

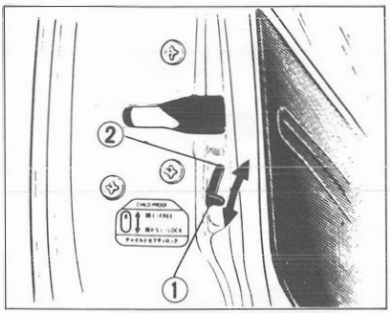


To lock the door, move the lock lever in the direction of arrow. To unlock it, move the lock lever in opposite direction.

WARNING:
Always lock the doors when driving. Locking the doors prevents inadvertent opening of the door by movement of the inside handle.

NOTE:
The door may be locked from outside without the key. To do this, first, engage the inside lock lever with the door opened, lift up the outside door handle and close the door. Be careful not to lock the key inside the vehicle.

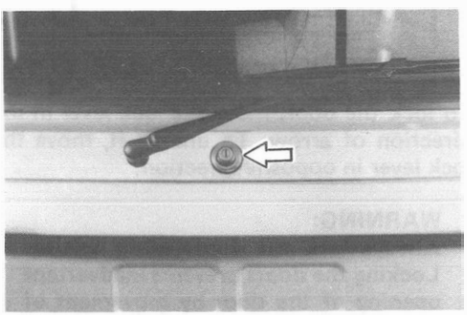
CHILD-PROOF



As illustrated, a child-proof lock is provided for each of the right and left rear doors. When the lock lever is in position ① , the child-proof lock is locked, and when in position ② , the child-proof lock is unlocked. When the child-proof lock is in the locked position, the rear door cannot be opened from the inside even if the inside door lock is unlocked but can be opened from the outside.

WARNING: Be sure to place the child-proof lock in the locked position whenever children are seated in the rear.

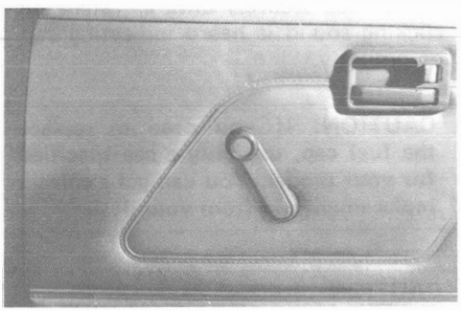
HATCHBACK LID



The hatchback lid is locked with the ignition key. To lock the hatchback lid, insert the ignition key into the lock button and turn it clockwise, and to unlock, turn it counter-clockwise.

If your car is equipped with the hatchback lid lock switch on the instrument panel, the hatchback lid may be locked or unlocked from inside the car by operating this switch.

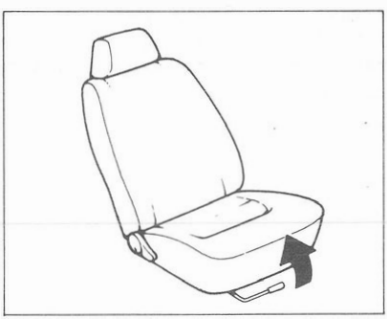
OPENING AND CLOSING DOOR WINDOWS



Turn the regulator handle clockwise to raise the right windows and counterclockwise to raise the left windows. Reverse the turning direction to lower the window.

SEAT

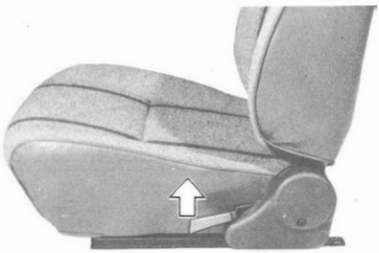
Seat adjustment



By means of the seat adjuster lever located under the seat, slide the seat forward or backward. Pull the lever up and the seat will slide freely to the position you desire.

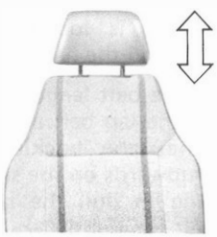
WARNING: Do not adjust the driver's seat while driving. The seat may suddenly jerk forward or backward, which could result in loss of control.

Reclining seat



The seatback's angle can be freely controlled and adjusted to your preference. Pull the lever and the seatback moves freely, release it and the seatback instantly locks in place. The seatback can also be folded forward.

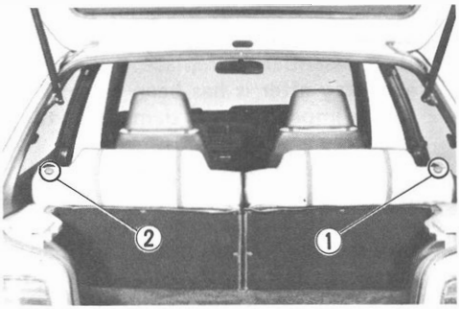
Adjustment of head restraint

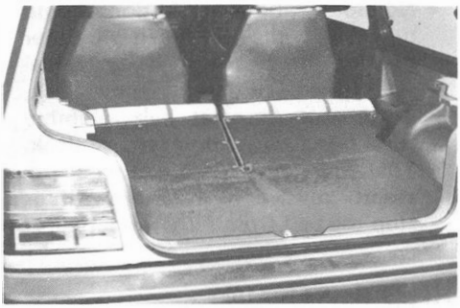


The height of the head restraint can be adjusted by pushing down or pulling up on it with enough force to overcome the retaining friction.

Operating folding rear seat

The rear seats may be easily converted into cargo space when needed. The right and left seatbacks can be individually folded forward.





To lower the folding seatback, pull up button ① to unlock the right seatback latch and/or button ② to unlock the left seatback latch. Pull the seatback forward and down.

To raise the seatback, lift it up and push back until it locks into place.

FRONT AND REAR SEAT BELTS

(Automatic retracting belts)

WARNING:

- **Seat belts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis, or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided.**
- **Seat belts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer.**
- **Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be re-**

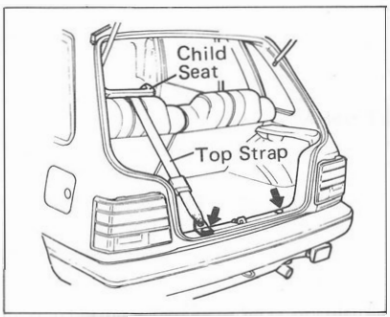
placed if webbing becomes frayed, contaminated or damaged.

- It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious.
- Belts should not be worn with straps twisted.
- Each seat belt assembly must only be used by one occupant: it is dangerous to put a belt around a child being carried on the occupant's lap.
- No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.
- The positioning of the tongue restrictor must never interfere with or stop the belt from fully retracting.

CHILD RESTRAINT

Your vehicle is designed to accommodate a child restraint on the rear seat. When using a child restraint, carefully read and follow the Installation Instructions attached to it.

Anchorage Location

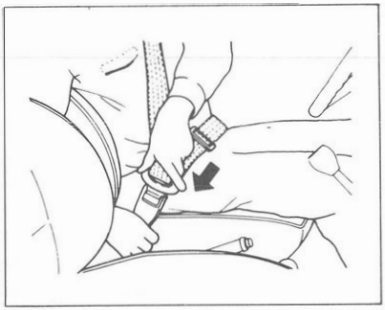


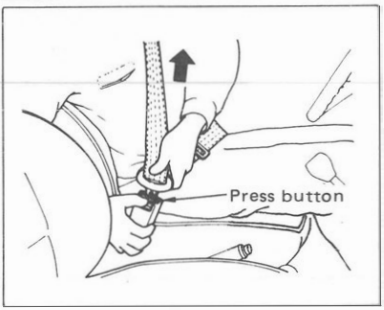
Anchorages are located on either side of the luggage compartment floor.

When installing a child restraint it is essential that the correct anchor bolt be used.

If you have any queries regarding the installation of a child restraint please see your GMH Dealer for advice.

WARNING:
Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.





Draw the buckle tongue attached to the seat belt across the body and press it into the buckle catch until a "click" is heard. The buckle catch unit is located on a stalk between the seat and the hand brake.

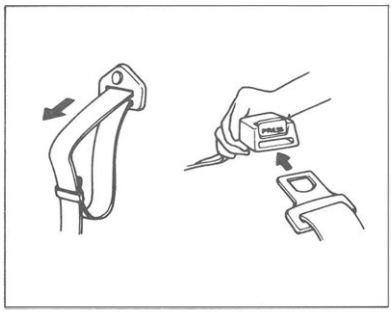
Adjustment of the belt length is very important. To adjust the lap belt and at the same time check that the buckle has locked correctly, pull upwards on the shoulder strap as if attempting to pull the buckle apart, until the lap belt fits tightly.

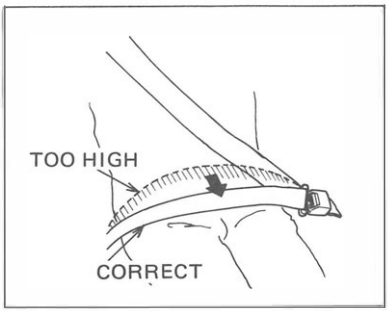
The length of the diagonal shoulder strap adjusts itself to allow freedom of movement. To unfasten the belt, press the release button on the buckle catch unit.

No modifications or additions should be made by the user which will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack.

FRONT AND REAR SEAT BELTS

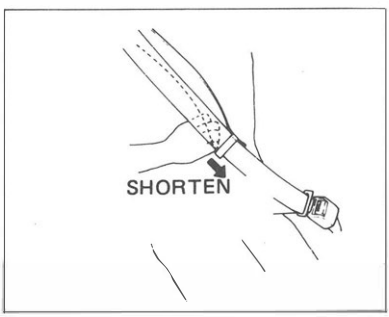
(3-point non-retractor type)

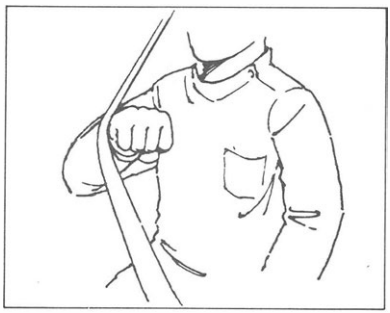




To fasten the seat belts, insert the tongue end into the buckle. A click is heard when the tongue locks into the buckle correctly. Make certain the connection is secure without any twists or misalignment around the seat. If the belt is not long enough, take the belt at the shoulder anchor point and pull it in the direction of the arrow as illustrated.

Adjust the lap portion of the belt to the proper position. To reduce the risk that you might slip under the belt in an accident, make sure that the lap portion fits you snugly as low as possible on your lap as illustrated and not up on your waist.



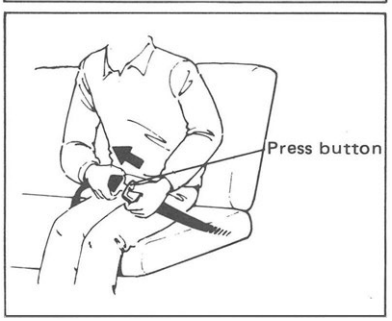


Next, adjust the shoulder portion of the belt so that it is a little slack. To shorten the belt, pull the inner free end in the direction of the arrow as illustrated. The shoulder portion should have just enough slack, so that a clenched fist can be inserted between the belt and your chest as also illustrated. Too much slack at the shoulder portion makes the belt ineffective in accidents. The shoulder portion should never pass under your relevant arm.

To unfasten the belt, press the release button on the buckle and the tongue will disengage from the buckle. After use, always rehang the belt on the hook provided near the upper anchorage point.

REAR SEAT BELTS

(2-point, non-retractor type)



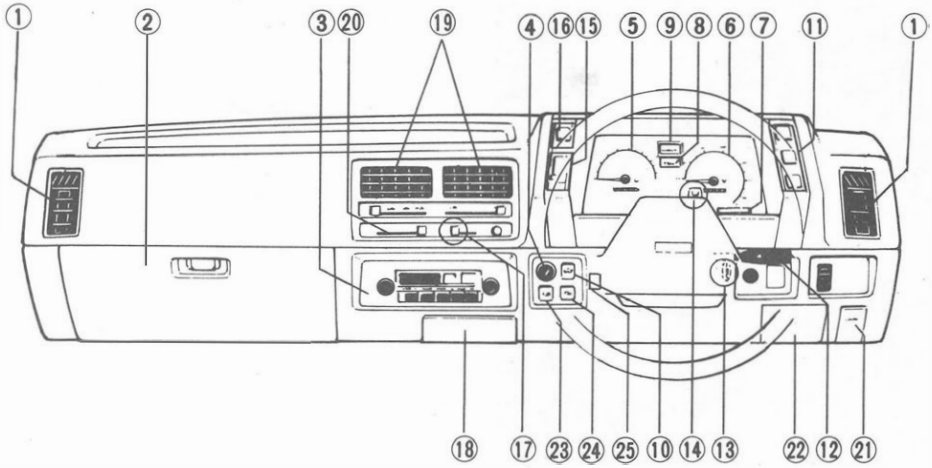
To fit the seat belt, draw the buckle tongue fitting across the lap and press it into the buckle catch unit located on the opposite side. On this belt the adjuster is incorporated in the tongue unit.

To tighten the belt, pull the free end of the belt across alongside the lap strap until it is adjusted to a firm comfortable position.

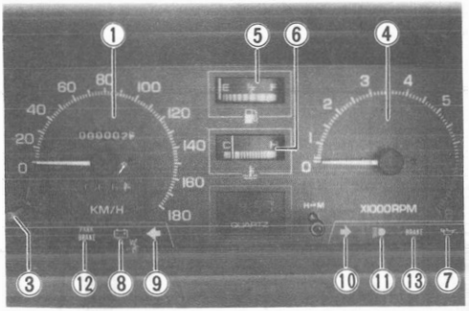
To lengthen, release the tongue from the buckle unit, turn the tongue (adjuster) away from the belt and slide it along the belt. The tongue should then be re-fitted into the buckle unit and the belt tightened as previously described.

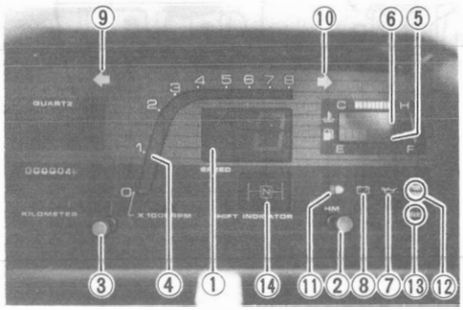
To unfasten the belt, press the release button on the buckle.

INSTRUMENTS AND CONTROLS



① Side ventilator
② Glove box
③ Radio
④ Cigarette lighter
⑤ Speedometer
⑥ Tachometer
⑦ Warning and indicator lights
⑧ Temperature gauge
⑨ Fuel gauge
⑩ Rear window defroster switch
⑪ Light switch
⑫ Turn signal and dimmer switch
⑬ Ignition switch
⑭ Hazard warning switch
⑮ Windshield wiper switch
⑯ Washer switch
⑰ Blower switch
⑱ Ashtray
⑲ Center ventilator
⑳ Heater control panel
㉑ Hood release
㉒ Fuse box
㉓ Rear window wiper switch
㉔ Rear window washer switch
㉕ Instrument light control





SPEEDOMETER ① :

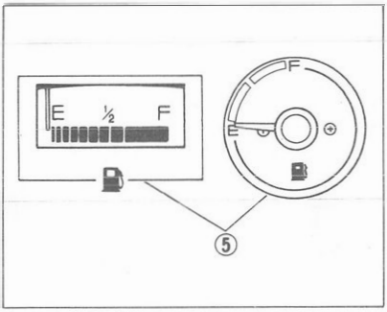
The vehicle is equipped with either an analog type speedometer or a digital type speedometer (optional). The speed is indicated in Km/h and/or miles/h. The digital speed display can be set for Km/h or miles/h alternately each time knob ② is pulled. This does not affect the odometer and trip meter indications.

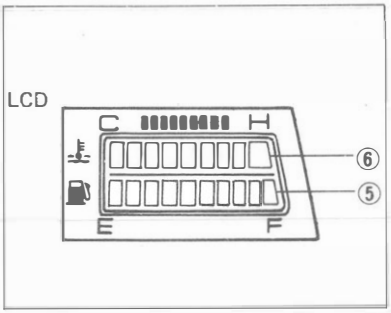
The odometer records the total distance the vehicle has been driven. The trip meter records the distance of a single journey after resetting. Reset the trip meter to zero by pushing the reset knob ③ .

TACHOMETER ④:

The tachometer records engine speed in revolutions per minute. Never drive in the red zone.

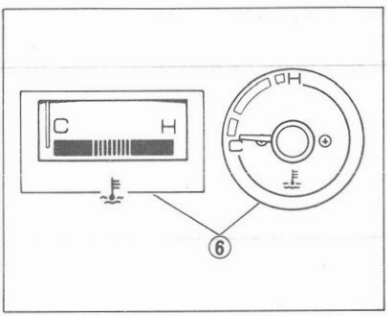
FUEL GAUGE ⑤ :





When the ignition switch is on, this gauge indicates the amount of gasoline in the tank. "F" stands for full and "E" means empty. In the "LCD" gauge, the segment at "E" will flash intermittently if the tank is empty or nearly empty.

WATER TEMPERATURE GAUGE ⑥:

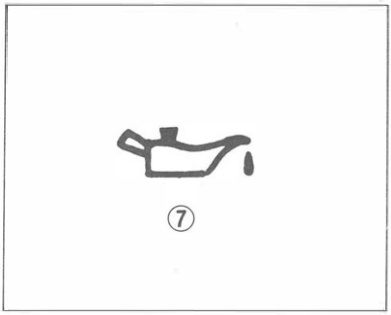


The coolant temperature is indicated by this gauge with the ignition switch turned on. Under normal conditions, the temperature should be within the normal, acceptable temperature range shown by the broken line or arc line between "H" and "C." If the temperature indication exceeds this range and is close to "H," overheating is

indicated. If the temperature is lower than the "C" position on the "LCD" gauge, the segment at "C" will flash intermittently.

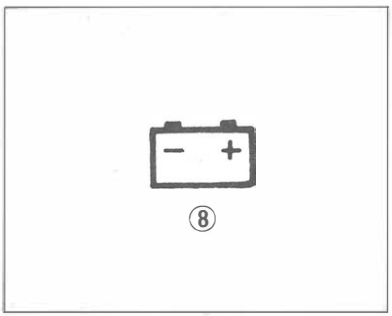
INDICATOR AND PILOT LIGHT

Oil pressure light ⑦ :



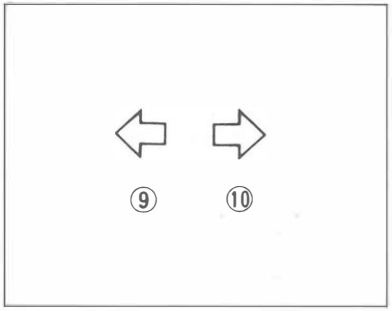
This light comes on when the ignition switch is turned on, and goes off when the engine is started. However, it will remain on if something goes wrong with the engine lubrication system. If this occurs, the lubrication system should be inspected immediately by your HOLDEN dealer.

Charging light ⑧ :



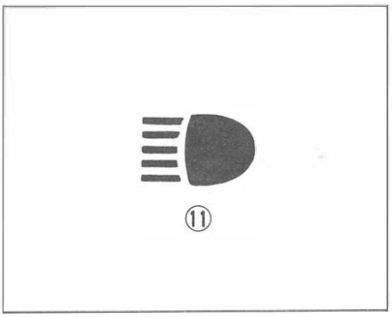
This light comes on when the ignition switch is turned on, and goes off when the engine is started. If it remains on, there is something wrong with the battery charging system. If this occurs, the charging system should be inspected immediately by your HOLDEN dealer.

Turn signal pilot light ⑨ & ⑩ :



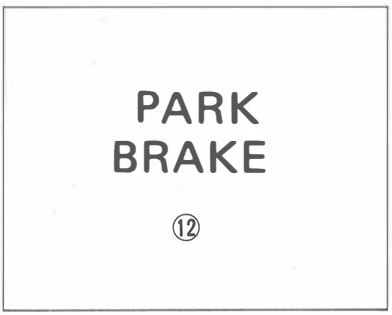
This light flashes together with the turn signal light when the turn signal is switched on. When the light on the left side flashes, light ⑨ flashes, and when the light on the right side flashes, light ⑩ flashes.

High beam indicator light ⑪ :



This light comes on when the headlight high beams are turned on. It does not come on when the headlights are on low beam.

Parking brake indicator light ⑫ :



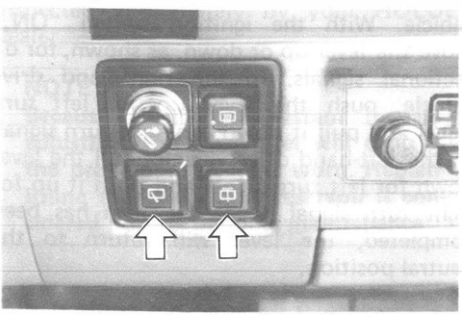
This light comes on when the parking brake is not released and the ignition switch is in the "ON" position.

Front windshield:
Windshield wiper switch and washer switch are located on left side of the meterhood in the right-hand drive vehicle, and on the right of the meterhood in the left-hand drive vehicle.

To operate the wipers, push the wiper switch lever upward. They operate at two speeds. Push the wiper switch lever up to the "HI" position for high-speed operation and to the "LO" position for low-speed operation. To operate the wipers intermittently, move the lever by one notch to the "INT" position (optional). In this setting the wipers operate once per 5-6 seconds, which is very convenient for driving in mist or light rain.

Window washer fluid will spray out when the washer button is pushed.

Rear window (optional):

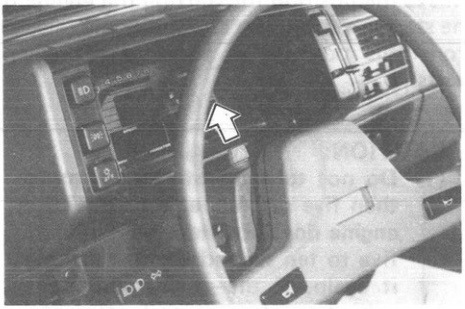


With the ignition switch in the "ON" position, the wiper operates when the switch is pushed in and stops when the switch is pushed once again.

Window washer fluid will spray out when the washer button is pushed.

CAUTION:
(1) Release the washer button when window washer fluid ceases to come out. The motor will be damaged if the washer lever is operated when there is no window washer fluid.
(2) The windshield and the wiper blades will be damaged if dirt is attempted to be removed from the dry windshield with the wipers. Make sure always to wet the windshield with the washer fluid before operating the wipers.

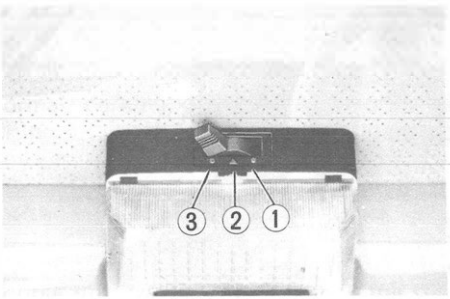
HAZARD WARNING SWITCH



Use this hazard warning switch as a warning light to the other traffic during emergency parking or when your vehicle can otherwise become a traffic hazard.

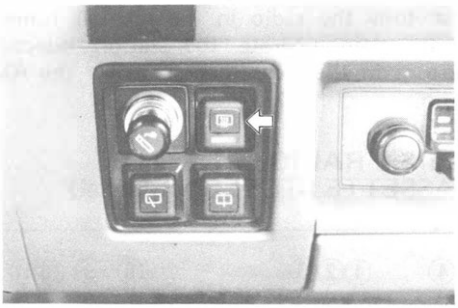
CAUTION: Do not use this switch except in an emergency.

INTERIOR LIGHT SWITCH



There are three positions.
① : The light stays on regardless of whether the door is opened or closed.
② : The light comes on while the driver's door is opened.
③ : The light remains off even with a door opened.

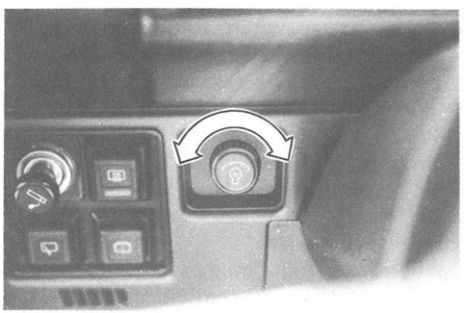
REAR WINDOW DEFROSTER SWITCH



When the rear window is misted or frosted over, push this switch to clear the window. A pilot light is illuminated while the defroster is in operation. To turn off the defroster, push the switch again. The defroster will not function if the ignition switch is turned off.

CAUTION: Since the defroster consumes a large amount of electricity, the switch should be turned off as soon as the mist on the rear window has disappeared.

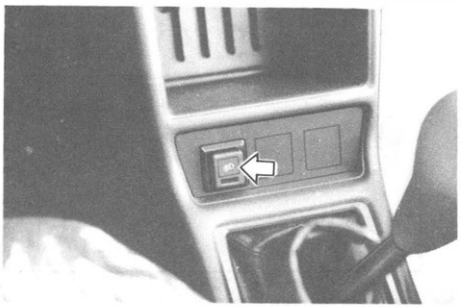
INSTRUMENT LIGHT CONTROL



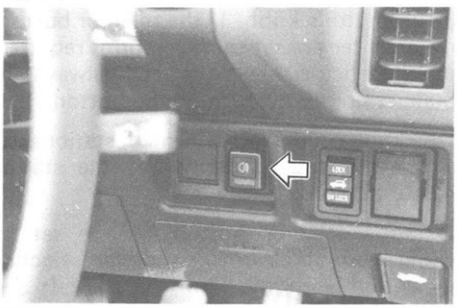
If your vehicle is equipped with the instrument light control, turn the instrument light control knob clockwise to dim the instrument lights and counterclockwise to brighten them.

FRONT AND REAR FOG LIGHT SWITCH (optional)

FRONT

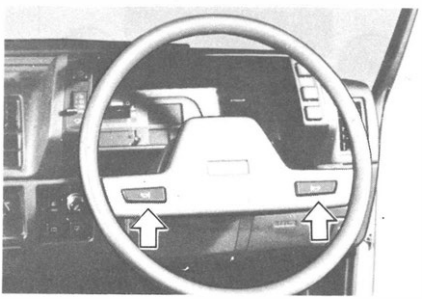


REAR



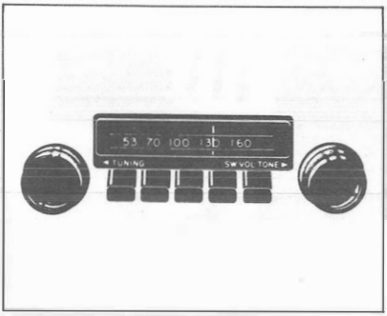
The fog light will come on when the fog light switch is pushed on while the headlights are lit. A pilot light is illuminated while the fog light is on.

HORN BUTTON



The horn will sound when the horn button is pressed regardless of the ignition switch position.

AM RADIO (optional)

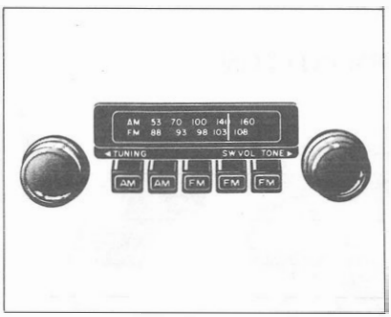


The radio is turned on by pushing the knob on the right, and volume can be controlled by turning this knob. If the selector buttons in the center are set to the stations required, these particular stations can always be obtained simply by pushing the button.

If the knob on the left is turned, stations can be selected independently of the station selector buttons.

A station selector button can be set by pulling it out about one centimeter, selecting the station with the knob on the left and then pushing the button in.

AM/FM RADIO (optional)



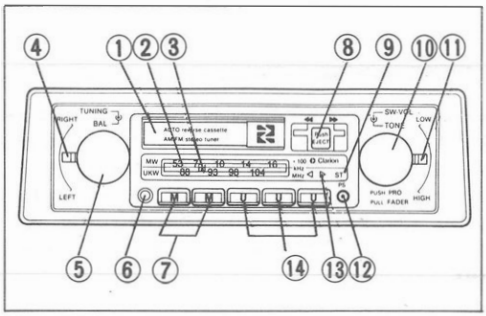
Manual tuning

To receive FM broadcasts, push one of the selector buttons marked "FM" or "U", then tune to the desired frequency with the tuning knob to the left of the radio dial. To switch to AM, push one of the selector buttons marked "AM" or "M" and then tune in.

Tuning with station selector

The operation and resetting procedure are similar to the AM radio. To reset the selector, first tune the radio in the manual tuning mode, then operate the station selector buttons in the same manner as for the AM radio.

AM/FM RADIO SET WITH CASSETTE STEREO (optional)



① Tape slot
② Tuning display
③ Tuning indicator needle
④ Balance control knob
⑤ Tuning knob
⑥ Band indicator
⑦ AM push buttons
⑧ FF/REW lever/Eject button
⑨ Stereo indicator
⑩ Radio power switch, volume control knob/program select button, fader control knob
⑪ Tone control knob
⑫ Punch sound button
⑬ Program indicator
⑭ FM push buttons

Notes regarding use

1. When inserting a tape cassette in the unit, malfunctions may result if excessive tape slack exists in the cassette; repair any tape slack before inserting cassettes. Take special care when using C-90 (90 minutes) and "hi-fi" tapes.
2. Do not use C-120 (120 minutes) tapes.
3. For safety's sake, when driving, listen at a sound volume that still allows you to hear sounds outside the car.
4. Do not leave cassette tapes inserted in the unit when not in use.

5. Heat, humidity, and dust are particular enemies of cassette tapes. When not playing a tape, store it in its case away from direct sunlight and dusty places.

CASSETTE TAPE

***To start**

When a cassette tape is inserted in the tape slot, the power automatically turns on, the program indicator lights, and playback begins.

***To stop**

To stop playback, press the eject button (▲). Playback will be stopped, and the cassette tape will be ejected.

***To select tape program side**

1) Automatic program selection:
   When one side of a tape completes playing, the deck will automatically reverse directions to play back the other side of the tape.
2) Manual program selection:
   Press the program select button lightly. Even if the deck is currently playing one side of a tape, it will immediately reverse direction and begin playing the other side of the tape.

***Program indicators (◁▷)**

When one of these indicators lights, it shows the current direction of tape playback. When playing in the ▷ direction, tracks 1–2 are played, and when ◁ lights, tracks 3–4 are played back.

***FF/REW (◄◄, ►►)**

Fast forward (FF) and rewind (REW) can be performed by moving the FF/REW lever to right or left. If moved in the same direction as the currently lighted program indicator, fast forward will be performed. If moved in the opposite direction, rewind will be performed. Since this lever locks into position, it's function can be cancelled by returning the lever by hand to its original position. If a tape comes to its and on FF or REW, the lever will be automatically released, and playback will begin in the opposite direction.

***Volume control (VOLUME)**

When the volume control knob is rotated clockwise, sound volume is increased.

***Tone control (TONE)**

When the tone control knob is rotated clockwise, high-range tones are emphasized; when rotated counterclockwise, low-range tones are emphasized.

***Balance control (BALANCE)**

This control adjusts the balance of sound from right and left speakers. When the balance control knob is rotated clockwise, sounds from the right speaker are increased. When rotated counterclockwise, sounds from the left speaker are increased.

***Fader control (FADER)**

This control adjusts the balance of sound between front and rear speakers. When the fader control knob is pulled out and rotated clockwise, sound from the front speakers is increased. When rotated counterclockwise, sounds from the rear speakers are increased.

***Punch sound control (PUNCH SOUND)**

When the punch sound button is pressed, low-range sounds will be emphasized when listening at low sound volume levels.

AM/FM BROADCASTS

***Power (POWER)**

Press the radio power switch to turn on power. To turn power off, press the switch once again.

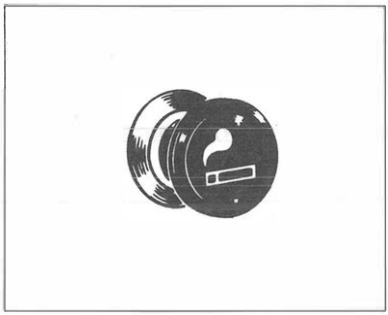
***Push-button tuning (TUNING)**

These push buttons are designed to simultaneously switch the radio band received between FM and AM, and tune in preset stations. The 2 buttons on the left can be preset for AM stations, while the 3 buttons on the right can be set for FM stations. When receiving AM broadcasts, the band indicator lights green, and when receiving FM broadcasts, it lights orange. Also, when FM stereo broadcasts are received, the stereo indicator lights.

***Manual tuning**

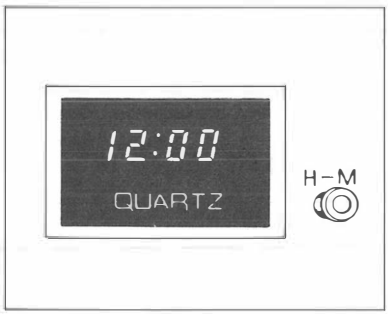
To tune in a station manually, rotate the tuning knob.

CIGARETTE LIGHTER (optional)



Push the cigarette lighter into the receptacle. The tip of the lighter will get red-hot after about ten seconds. The lighter may be taken out and used after it has returned automatically to its original position.

CLOCK (optional)



The clock operates as long as electrical power is connected to the system. However, the digital display can not be seen unless the ignition switch is turned to the "ON" position. To reset the time, follow the instructions below.

To reset the minute display:

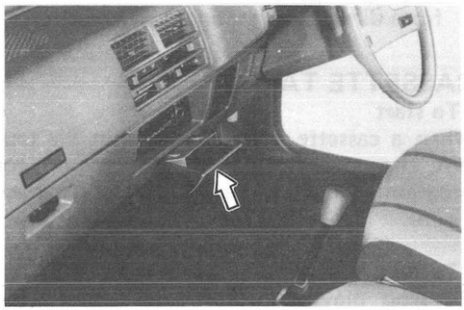
- Push the reset knob to reset the minute display to zero. The hour display may also be affected when the minute display is reset. For example, times between 1:01 ~ 1:29 will be reset to 1:00 and times between 1:30 ~ 1:59 will be reset to 2:00.
- Turn the knob clockwise (toward "M") to advance the minute display by one minute at a time.

To reset the hour display:

Turn the knob counterclockwise (toward "H") and the hour display will advance by one hour at a time.

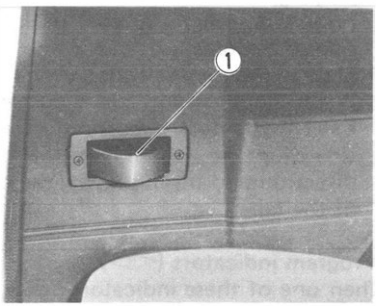
ASHTRAY

Front ashtray



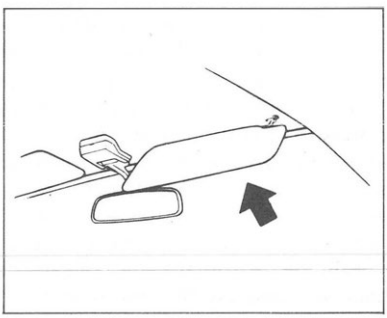
The ashtray can be used after pulling it out. To clean the ashtray, remove by pushing it downwards and pulling it completely out of its socket.

Rear ashtray



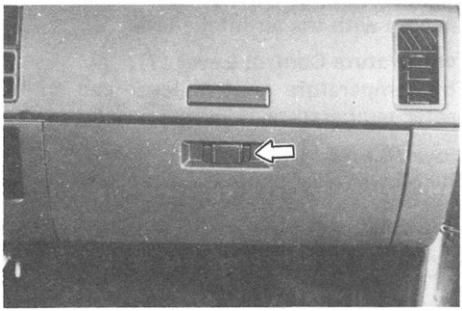
The ashtray for the rear seat is fitted on the right trim board. It can be used if turned as shown in the photo. To remove, pull the tray outward while pushing portion ①.

SUN VISOR



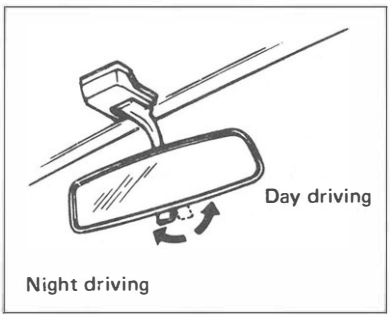
This gives protection against dazzle from the sun. If the sunlight is dazzling, pull the sun visor downwards or swing in sideways.

GLOVE BOX



The glove box will open toward you when the button is pushed in as shown in the photo.

DAY-NIGHT REARVIEW MIRROR



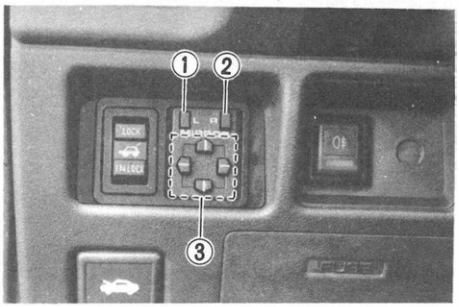
The inside rearview mirror may be set to either the day position or the night position by simply pushing or pulling the selector tab. The night position reduces glare from the headlights of vehicles behind you.

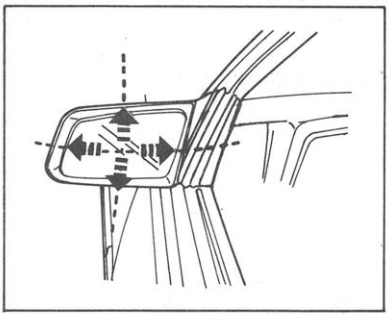
To adjust the mirror, first set the selector tab to the day position, then move the mirror up, down or sideways to obtain the best view.

WARNING:

- **Do not adjust the mirror for the normal day vision with the selector set to the night position, or you will lose the rear view when the selector is operated later.**
- **The night position darkens the rear vision to reduce visibility. Remember; you may be unable to see some objects that are seen in the day position.**

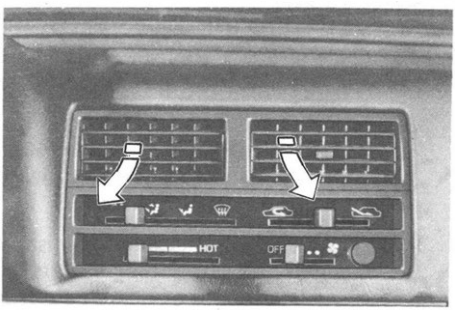
ELECTRIC OUTSIDE MIRROR (optional)





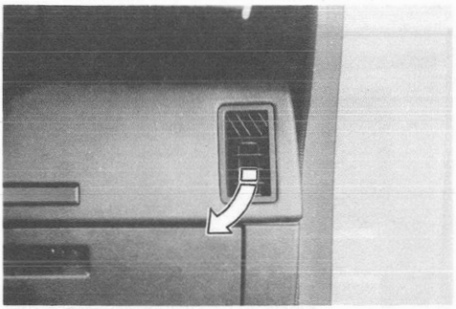
The mirror operates when the ignition switch is turned ON. Push the switch ① to control the left-hand side door mirror and ② to control the right-hand side door mirror respectively. With the four button switches ③, the mirror angle is adjusted outward, inward, upward and downward.

CENTER VENTILATOR



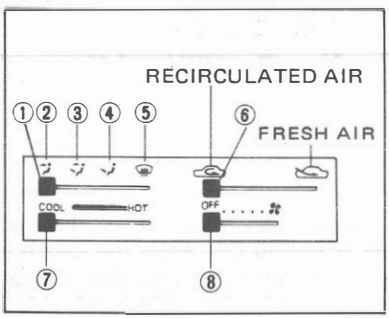
On the center ventilator outlet, air flows can be controlled in the desired direction by moving the louvers of the ventilator outlet grille.

SIDE VENTILATOR



The wind direction is controlled by turning the ventilator.

HEATER SYSTEM



The heater system includes the forced ventilation function. Operate the system according to the following:

Air Selector Lever ① :

VENTILATION ② : Air is discharged from the center outlets of the instrument panel and the side outlets.

BI-LEVEL ③ : Air is discharged from the center outlets and heated air from the floor outlets.

HEATER ④ : Heated air is discharged from the floor outlets and a small amount of heated air from the windshield and side defrosters.

DEFROST ⑤ : Heated air is discharged from the windshield defrosters and side defrosters.

Air Intake Control Lever ⑥ :
Recirculation or outside air intake can be selected with the air intake lever.

Temperature Control Lever ⑦ :
The temperature control lever can control heater temperature.

Blower Lever ⑧ :
The blower lever controls fan speed.

SYSTEM OPERATING INSTRUCTIONS

Natural Ventilation
Move the air selector lever to the "VENTILATION" position, the air intake lever to "FRESH AIR" and the temperature control lever to "COOL". Set the blower lever to the OFF position.

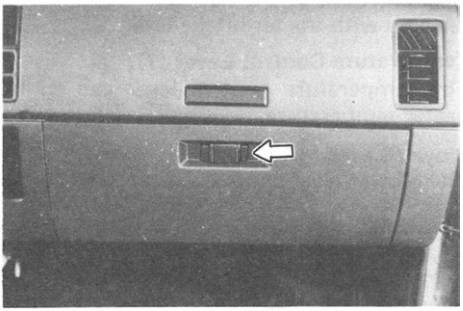
With this lever setting, ram-air is obtained during driving.

Forced Ventilation
The lever setting is the same as for natural ventilation except that the blower lever is set at any position of your preference.

Heating By Introducing Outside Air (Regular Heating)
Move the air selector lever to "HEATER" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to regulate the temperature to your preference and set the blower lever to the desired fan speed. Setting it to a higher speed position increases the heating efficiency.

Heating By Using Interior Air (Quick Heating)
The lever setting is the same as for "Heating By Introducing Outside Air" except that the air intake lever is set to the "RECIRCULATED AIR" position. If this heating method is used for an extended period of time, the air in the car can become contaminated and the windows can become cloudy. Therefore, use this method only for quick heating and change to the heating method by introducing outside air as soon as possible.

GLOVE BOX



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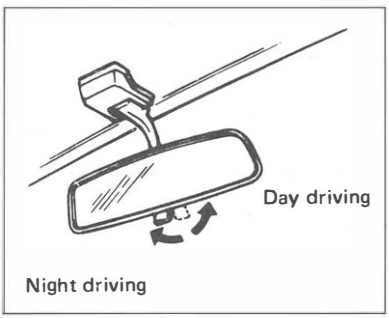
DAY-NIGHT REARVIEW MIRROR



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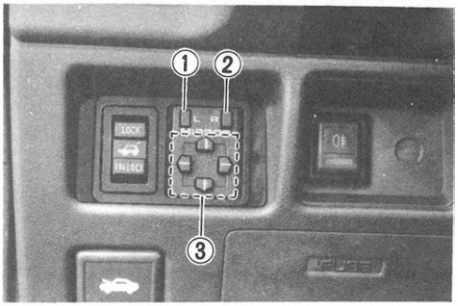
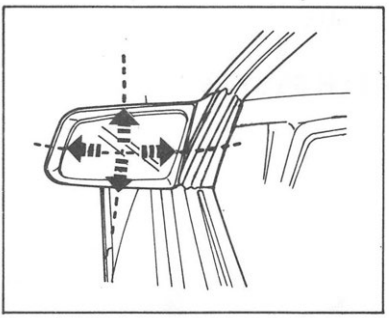
ELECTRIC OUTSIDE MIRROR (optional)





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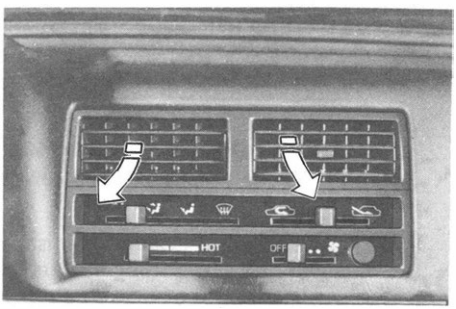
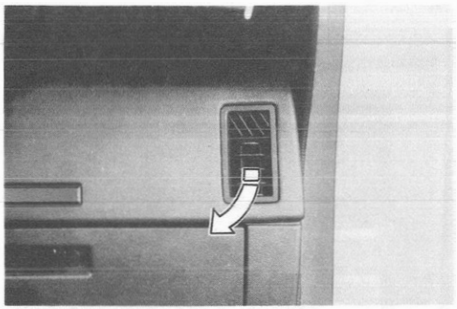
CENTER VENTILATOR



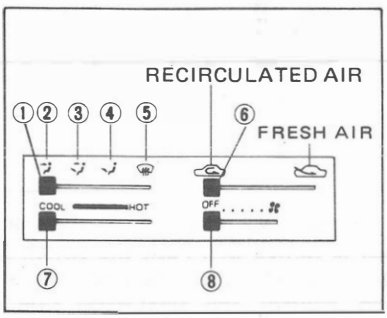
On the center ventilator outlet, air flows can be controlled in the desired direction by moving the louvers of the ventilator outlet grille.

SIDE VENTILATOR



The wind direction is controlled by turning the ventilator.

HEATER SYSTEM



The heater system includes the forced ventilation function. Operate the system according to the following:

Air Selector Lever ① :

VENTILATION ② : Air is discharged from the center outlets of the instrument panel and the side outlets.

BI-LEVEL ③ : Air is discharged from the center outlets and heated air from the floor outlets.

HEATER ④ : Heated air is discharged from the floor outlets and a small amount of heated air from the windshield and side defrosters.

DEFROST ⑤ : Heated air is discharged from the windshield defrosters and side defrosters.

Air Intake Control Lever ⑥ :
Recirculation or outside air intake can be selected with the air intake lever.

Temperature Control Lever ⑦ :
The temperature control lever can control heater temperature.

Blower Lever ⑧ :
The blower lever controls fan speed.

SYSTEM OPERATING INSTRUCTIONS

Natural Ventilation
Move the air selector lever to the "VENTILATION" position, the air intake lever to "FRESH AIR" and the temperature control lever to "COOL". Set the blower lever to the OFF position.

With this lever setting, ram-air is obtained during driving.

Forced Ventilation
The lever setting is the same as for natural ventilation except that the blower lever is set at any position of your preference.

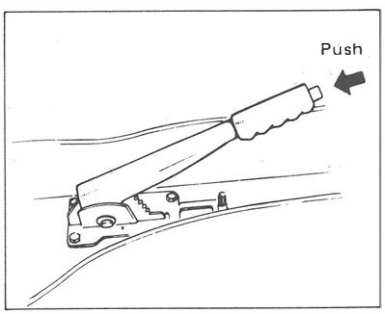
Heating By Introducing Outside Air (Regular Heating)
Move the air selector lever to "HEATER" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to regulate the temperature to your preference and set the blower lever to the desired fan speed. Setting it to a higher speed position increases the heating efficiency.

Heating By Using Interior Air (Quick Heating)
The lever setting is the same as for "Heating By Introducing Outside Air" except that the air intake lever is set to the "RECIRCULATED AIR" position. If this heating method is used for an extended period of time, the air in the car can become contaminated and the windows can become cloudy. Therefore, use this method only for quick heating and change to the heating method by introducing outside air as soon as possible.

Head Cooled/Feet Warmed Heating
Move the air selector lever to "BI-LEVEL" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to the desired temperature and the blower lever to the desired fan speed. This lever setting allows heated air to be discharged from the floor outlets and fresh, unheated air from the center and side ventilator outlets.

Defrosting
Set the air selector lever to "DEFROST" and the air intake lever to "FRESH AIR." Adjust the temperature control lever to desired temperature. Set the blower lever to the "HIGH" speed position first and when the windshield has become clear, move it to a lower speed position. The defrosters are at the lower end of the windshield and the side defrosters are at the both ends of the instrument panel.

PARKING BRAKE LEVER

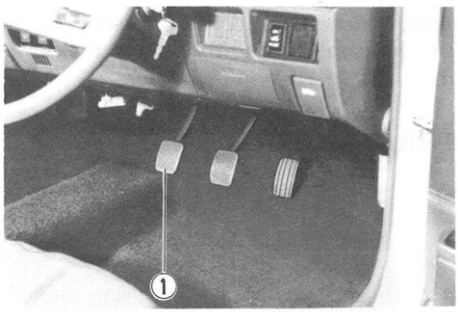


This lever must always be operated when parking. When the lever is pulled up, a parking brake is applied on the rear two wheels. To release the lever, raise it slightly, push the button at the end of the lever with the thumb and return the lever to its original position. To help remind you, the brake system warning light comes on if the parking brake lever is not fully released with the ignition switch in the "ON" position.

Never drive the vehicle with the parking brake set as this may overheat the rear brakes, reducing their effectiveness and causing excessive wear or damage.

CAUTION:
The parking brake will not prevent the vehicle from moving unless the lever is fully and firmly pulled up.
When parking the vehicle in below freezing temperatures weather, do not use the parking brake. Instead, shift the gear to either the Low or the Reverse position and apply chocks to the tires.

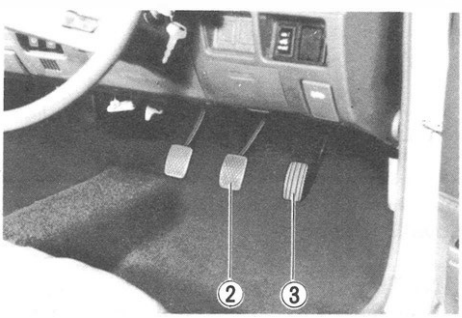
CLUTCH PEDAL ..... ①



The clutch pedal is used to disengage the drive to the wheels when starting the engine, driving off or shifting the transmission gear. Pressing the pedal disengages the clutch.

CAUTION: Do not drive with your foot resting on the clutch pedal. This may result in excessive clutch wear or damage.

BRAKE PEDAL ..... ②



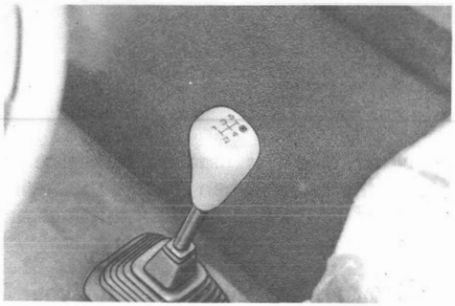
Pressing the brake pedal will apply the brakes on all the four wheels. Occasional brake squeal could be caused by environmental conditions such as cold, wet, snow, etc. This is considered normal. If squeal is excessive and occurs each time the brakes are applied, the brakes should be checked.

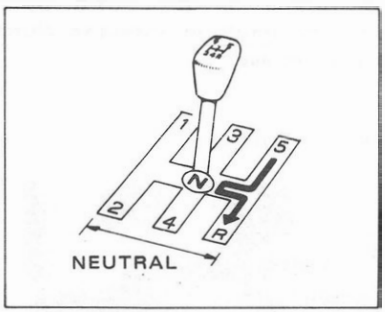
Disc brake wear indicators:
The indicators are designed to make a high-pitched squealing warning sound when the front disc brake pads become worn and require replacement. If the pads are not replaced when this warning is heard, the brake disc may be damaged.

ACCELERATOR PEDAL . . . . . ③

This pedal controls the revolutions of the engine. When the pedal is pressed with the foot, the revolutions increase, and the power output and speed are raised.

OPERATING TRANSMISSION





The 5-speed manual transmission is used in your vehicle and its gearshifting pattern is shown in the photo.

NOTE:
The gearshift lever will not move directly from 5th position to Reverse position. To shift from 5th position to Reverse position, first bring the gearshift lever to the intermediate position in neutral, then shift to Reverse as shown in the illustration.

DRIVING

BREAK-IN

The best possible materials are used in the manufacturing process and all machine parts are finished to high standards but it is still necessary to allow the moving parts to "BREAK-IN" before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint exercised during its early life. The general rules are as follows:

- Never exceed the following breaking-in speed limit.
- After starting, do not race the engine, but warm up gradually.

	Gear position	Initial 1 000 km (600 miles)
Maximum Recommended Speed	Low	30km/h (19mile/h)
	Second	55km/h (34mile/h)
	Third	80km/h (50mile/h)
	Fourth	110km/h (68mile/h)
	Fifth	130km/h (81mile/h)

STARTING THE ENGINE

1. Set the parking brake firmly.
2. Press the clutch pedal to the floor and shift the transmission to NEUTRAL. Hold the clutch pedal to the floor while you are starting the engine.
3. Start the engine as follows for different conditions.

Cold Engine
- Do not press down the accelerator pedal. With your foot off the pedal, crank the engine by turning the ignition key to "START." Release the key when the engine starts.
- If the engine does not start after 3 seconds of cranking, press down the accelerator pedal to 1/3 of its travel

while cranking. Release the key (and accelerator pedal) when the engine starts.

- If you tried the previous two (2) steps and the engine did not start, press the accelerator pedal to the floor and hold it there while cranking the engine. This should clear the engine if it is flooded.
- If the engine has been flooded with too much fuel, it may start to run but not have enough power to keep running. In that case, continue cranking with the accelerator pedal all the way to the floor until the engine clears itself of excess gasoline and runs smoothly. (But, do not crank more than 10 seconds at a time or you could damage the starter.)

After starting, the idle speed will automatically be reduced as the engine warms up.

In very cold weather (below −18°C or 0°F) or after vehicle has been standing idle several days, fully depress and release the accelerator pedal two or three times before cranking the engine. Then, with your foot off the accelerator pedal, crank the engine by turning the key to "START."

Warm Engine

Press down the accelerator pedal to 1/3 of its travel and hold. Crank the engine by turning the ignition key to "START." Release the key and accelerator pedal when the engine starts.

CAUTION:

- **Turn off the starter immediately after the engine has started. Otherwise, starter system damage may result.**
- **Do not turn the engine for more than 5 seconds as a time. If the first try fails, wait about 10 seconds (to let the battery recoup its strength) and then try again.**

USE OF TRANSMISSION

Speed range in each gear

Low	−40km/h (−25mile/h)
Second	10−70km/h (6−43mile/h)
Third	20−110km/h (12−68mile/h)
Fourth	30−140km/h (19−87mile/h)
Fifth	40km/h − (25mile/h −)

When changing gears or starting off do not race the engine. This shortens the engine life and prevents smooth shifting. All forward speeds are synchronized, which provides for noiseless, easy gearshifting. Good gearshift control refers to keeping the engine rpm always within a certain range regardless of changes in car speed. If this is done well, fuel will be conserved and the car's lifespan will be prolonged. To help your gearshifting, the following chart shows the recommended speed range in each gear.

TIPS ON DRIVING

High-speed Driving

When driving at a high-speed, pay attention to the following:

- Stopping distance progressively increases with the vehicle speed. Apply brakes ahead of time to make up for the increased stopping distance.
- On rainydays not only is poor visibility a problem but also "hydroplaning." This is the loss of the tire's direct contact with the road surface due to a water film forming between them. Steering or braking the vehicle while "hydroplaning" is almost impossible. If attempted, loss of control may result. Keep speed down when the road surface is wet.
- At high speeds, the vehicle may be affected by side winds. Therefore, reduce speed and assume the proper driving posture to prepare for unexpected buffeting, which are usually experienced at the exits of tunnels, when passing by a cut of a hill, or when being overtaken by large vehicles.

DRIVING ON HILLS

- When climbing steep hills, the car may begin to slow down and show lack of power. At this point you should shift to a lower gear so that the engine will again be operating in its normal power range. Shift rapidly to prevent the car from losing momentum.
- When driving down a hill, the engine should be used for braking by shifting to a lower gear.

WARNING:
Try not to hold the brake pedal down too long or too often while going down a steep or long grade. This could cause the brakes to get hot and not work as well. Failure to take these steps could result in loss of vehicle control.

DRIVING WITH FUEL ECONOMY

The following instructions will help you improve fuel economy.

Avoid excessive idling:
If you are to wait for more than a minute while you are not in traffic, stop the engine and start again later. When warming up a cold engine, allow the engine to idle until the temperature gauge comes up to the "C" position. In this position, the engine is sufficiently warm for starting off.

Avoid "Jackrabbit" starts:
Fast starts away from lights or stop signs will consume unnecessary fuel and shorten the engine life. Start in a restrained manner.

Avoid sudden stops:
Avoid abrupt braking whenever possible. Fuel energy is wasted in braking. Acceleration to resume the driving speed also requires fuel energy.

Keep a steady cruising speed:
Keep as constant a speed as road and traffic conditions will permit.

Keep air cleaner clean:
A dirty air cleaner will cause the carburetor to supply too much fuel to the engine. The result is waste of fuel due to incomplete fuel burning.

Keep weight to the minimum:
The heavier the load, the more fuel the vehicle consumes. Take out any luggage or cargo when it is not necessary.

Keep tire pressures correct:
Underinflation can waste fuel due to increased running resistance of tires. Keep your tires inflated to the correct pressures shown on the label on the door pillar of driver's side.

BRAKING

The distance needed to bring a car to a halt increases with the speed of the car. The braking distance, for example, at 60 km/h (37 mile/h) will be 4 times greater than the braking distance at 20 km/h (13 mile/h). Start to brake the car an ample distance from the stopping point and slow the car down gradually.

If water gets into the brakes, the brake performance may become poor and unpredictable. This may occur after driving through deep water or washing the underneath. In such cases, dry the brakes by gentle, repeated pedal action while driving at low speed.

Power assisted brakes
Even if power assistance is lost due to a stalled engine or other failures, the system is still fully operational on reserve power and can bring the vehicle to a complete stop by pressing the brake pedal once and holding it down. The reserve power is partly used up and reduces each time the pedal is pressed. Apply smooth and even pressure to the pedal. Do not pump the pedal.

WARNING:
Without the reserve power in the system, the vehicle can still be stopped by pressing the brake pedal harder than normally required. However, the stopping distance may be longer.

DRIVING ON ICE AND SNOW

To keep the tires from slipping or skidding when driving on ice or snow-covered roads, tire chains, snow tires or studded snow tires can be used. Keep the following suggestions in mind:

- Rather than pressing down hard on the brake pedal, the pedal should be pumped steadily and evenly to prevent the wheels locking.
- Use care when starting, speeding up or shifting into lower gear while driving. Sudden acceleration or engine braking can cause the car to slide sideways due to wheel spin or skidding.
- Avoid large, quick movements of the steering wheel. Slow down to a safe speed and steer gently when making a turn.

Snow chains

If you must fit snow chains or similar to increase the tire traction, observe the following:

- You are recommended to use HOLDEN genuine snow chains or equivalent small link chains.
- When installing, carefully follow the manufacturer's instructions.
- When driving with chains on, limit the driving speed below 50 km/h.

DAILY MAINTENANCE AND INSPECTION

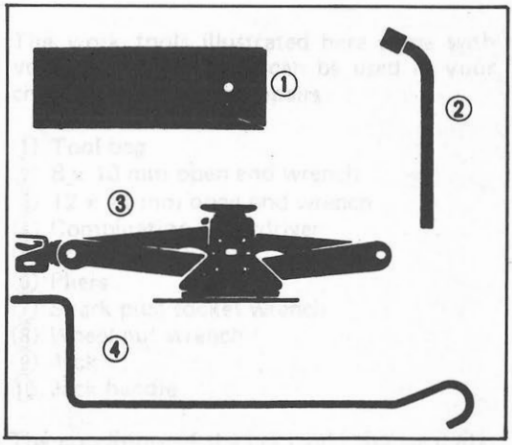
The condition of the car could change daily. Before driving every day, inspect the following items on your car. The inspection procedures are explained in the following pages.

- Engine Oil . . . . . Page 26
- Water Pump Drive Belt . . . . . Page 27
- Windshield Washer Fluid . . . . . Page 27
- Engine Coolant . . . . . Page 27
- Battery Electrolyte . . . . . Page 28
- Brake Fluid . . . . . Page 28
- Tyres . . . . . Page 29

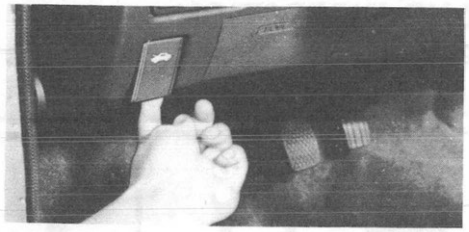
PORTABLE WORK TOOLS

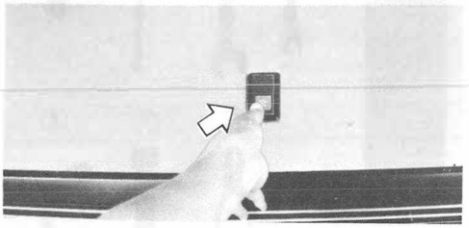
The work tools illustrated here come with your car.

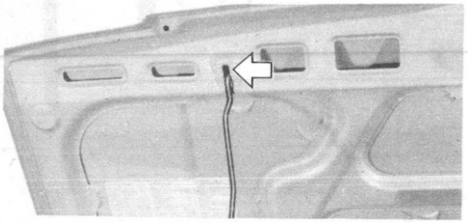
① Tool bag
② Wheel nut wrench
③ Jack
④ Jack handle



OPENING THE HOOD

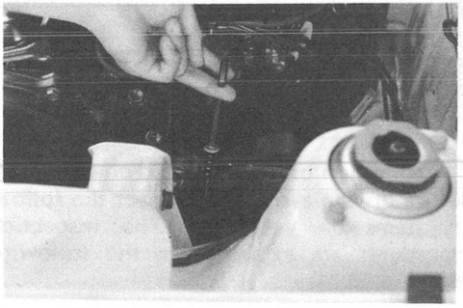


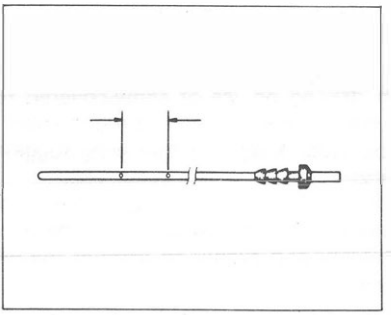




To open the hood, pull the release lever at the bottom right of the instrument panel in the right-hand drive vehicle, and at the bottom left of the instrument panel in the left-hand drive vehicle. Lift up the hood while pushing the safety lock. Then, hold the hood open with the prop rod as shown in the photo. To shut the hood, lift it up slightly, release and stow the prop rod, and lower the hood gently. Push the front part of the hood down and it will lock.

ENGINE OIL



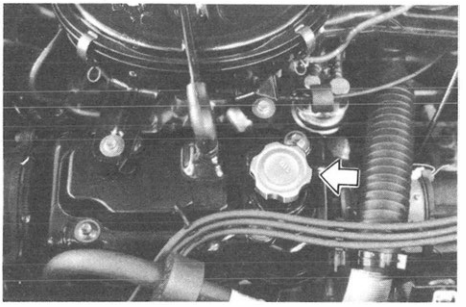


Inspection

The oil level should be inspected with the car placed on a level surface. Incorrect level may be shown if the car is on a slope. The oil level should be checked either before starting the engine or at least two or three minutes after stopping the engine.

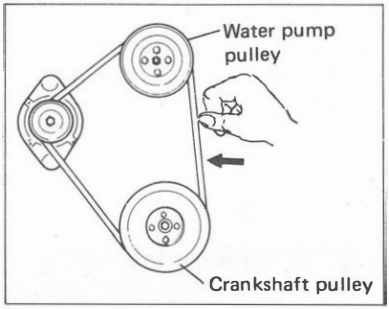
Pull out the oil dipstick, wipe oil off with a clean cloth, insert the dipstick all the way into the engine, then remove it again. The oil on the stick should be between the upper and lower limits. If it is near the lower limit, add oil to raise the level to the upper limit.

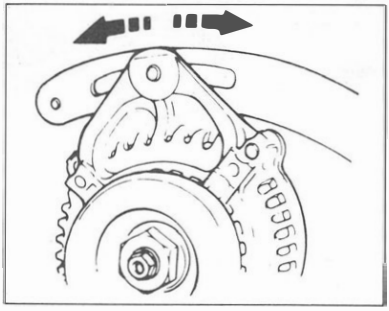
Refilling



Remove the filler cap and pour oil slowly through the filler hole to bring up the oil level on the dipstick to the upper limit. Be careful not to overfill. Too much oil is almost as bad as too little oil. After refilling, start and allow the engine to idle for about a minute. Stop the engine, wait for two or three minutes and check the oil level with the dipstick.

WATER PUMP DRIVE BELT



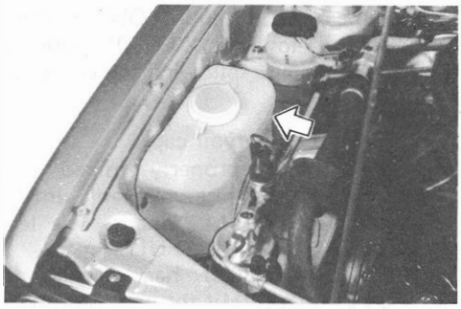


If the belt is too loose, insufficient battery charging, overheating or excessive belt wear will result. The tension of the belt should be such that there is a deflection of 6 – 9 mm when midway between the pulleys is pressed by your thumb. The belt should also be examined to ensure that it is not damaged. The belt should be adjusted or replaced in the following way:

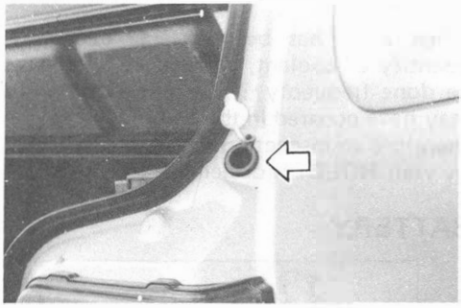
1. Loosen the three bolts securing the alternator.
2. When stretching the belt, push the alternator outwards with the bolts loosened, tighten the bolts at the position in which the tension of the belt is within the limits specified above, and fix the alternator securely.
3. To replace the belt, slide the alternator inwards with the bolts loosened and replace the belt. Having replaced it, stretch the belt as specified in "2" above.

WINDSHIELD WASHER FLUID

Front



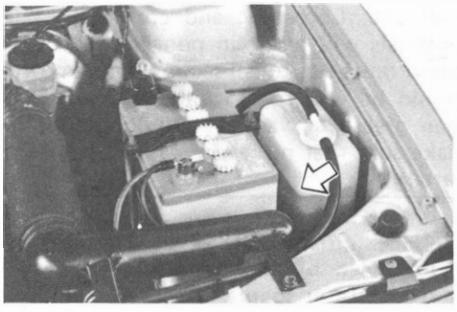
Rear



Check that there is washer fluid in the tank. Refill if it is not sufficient. Use good quality windshield washer fluid or mix it with water if necessary.

CAUTION: Damage will result if the motor is operated with no fluid in the washer tank. Never use engine anti-freeze as a substitute, or paint damage will result.

ENGINE COOLANT



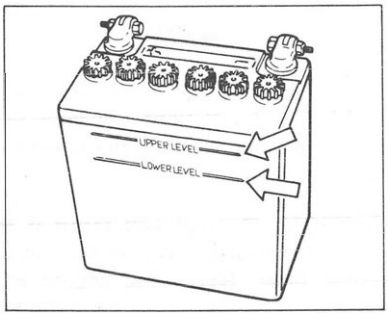
Inspection

With the engine cool, check the coolant level in the reservoir tank. The level should be between the "FULL" and "LOW" marks. If the level is below the "LOW" mark, replenish the coolant following the procedure below.

(1) Remove the reservoir cap.
(2) Pour coolant properly mixed with water into the reservoir tank until it reaches the "FULL" mark. The level must not exceed the "FULL" mark.
(3) After the coolant has reached the "FULL" mark, refit the cap securely.

When there has been a large decrease in quantity of coolant, or when refilling has to be done frequenty, it is possible that a leak may have occured in the cooling system, and therefore an inspection should be carried out by your HOLDEN dealer.

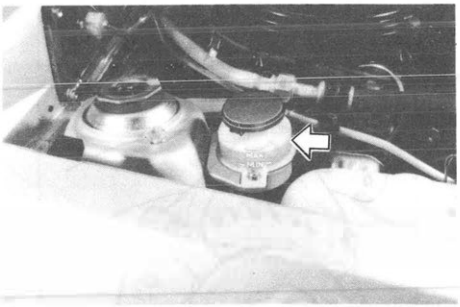
BATTERY



The level of the battery solution must be kept between the "UPPER" and the "LOWER" level lines at all times. If the level is found to be below the "LOWER" level line, add distilled water to the "UPPER" level line. Loosening and corrosion of the terminals will result in poor contact. When found on the terminal section, white powder should be washed off with warm water and then grease or vaseline should be applied. Make sure that no warm water gets into the battery.

WARNING:
Since inflammable hydrogen gas is produced by the battery, keep away from fire or sparks whenever handling it. Otherwise, an explosion can occur.
It is dangerous if battery fluid gets into the eyes or on the skin. In this respect care should be taken. If by any chance it should get on the skin, the part affected must be washed immediately with plenty of water for at least five minutes, and a medical specialist should be consulted.

BRAKE FLUID

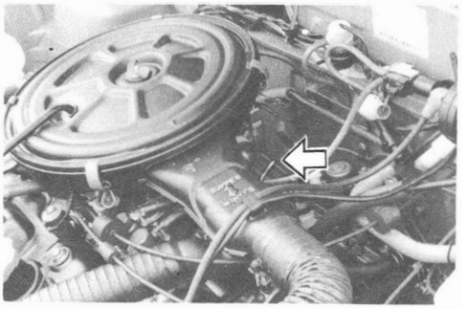


The brake fluid tank will be seen if the hood is opened. Check that the oil level is above the "MIN" line. If it is at or close to the "MIN" line, fill up with brake fluid meeting SAE J1703 or DOT3.

CAUTION:
(1) Since the brake system of this vehicle is factory-filled with a glycol-based brake fluid, do not use or mix it with a different type of fluid when refilling, otherwise serious damage will be caused. Do not use a brake fluid taken from old, used or unsealed containers.
(2) The brake fluid should be replaced once every two years.
(3) Take every caution when filling the reservoir because brake fluid can harm your eyes and damage painted surfaces.

WARNING:
As the brake fluid level in the reservoir goes down, the brake warning light on the instrument panel comes on while the engine is running. Should the light come on, inspect the reservoir for the brake fluid level. If the fluid is found to be below the "MIN" level, immediately ask your HOLDEN dealer to inspect the brake system.

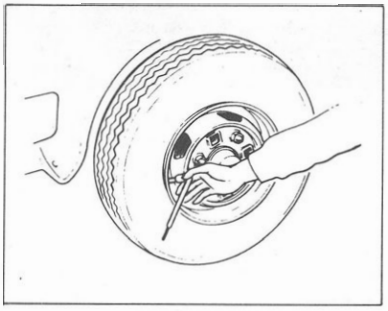
AIR INTAKE CONTROL LEVER



If your engine is equipped with an air intake control lever, operate it according to the atmospheric temperature. The lever is located on the cleaner intake duct to guide either warm or cold air into the engine. Set the lever either in the "WINTER" or "SUMMER" position according to the following:

Atmospheric Temperature	Position of lever
15°C (59°F) above	SUMMER
15°C (59°F) below	WINTER

TIRES



The following checks should be performed:

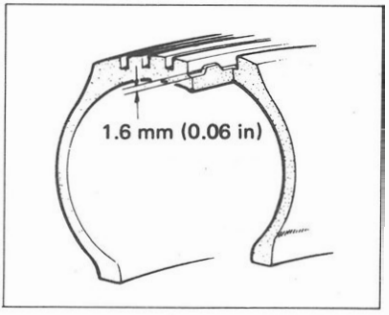
1. Measure the air pressure with a tire gauge.

	Front wheels	Rear wheels
145 SR12	220 kPa (2.2kg/cm^2) (31 psi)	220 kPa (2.2kg/cm^2) (31 psi)
5.95-12-4PR	200 kPa (2.0kg/cm^2) (29 psi)	200 kPa (2.0kg/cm^2) (29 psi)

CAUTION:

(1) Air pressures should be checked when the tires are cold.

(2) It is dangerous to give the tires too much air pressure. Pressure should not be in excess of 250 kPa, 2.5 kg/cm^2.

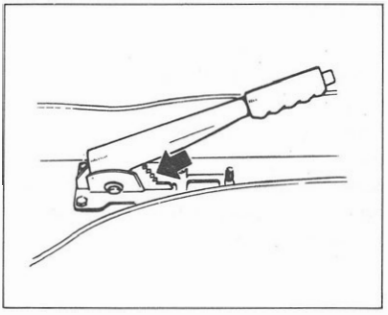


2. Check that the depth of the tread groove is more than 1.6 mm. To help you check this, the tires have molded-in tread wear indicators in the grooves. When the indicators appear on the tread surface, the remaining depth of the tread is 1.6 mm or less and the tire should be replaced.
3. Check for abnormal wear, for cracks and for damage. When there is abnormal wear, an inspection should be performed by a HOLDEN dealer. New tires should be fitted when there are cracks or damage.
4. Check for loose wheel nuts.
5. Check that there are no nails, stones or other objects sticking into the tires.

CAUTION:

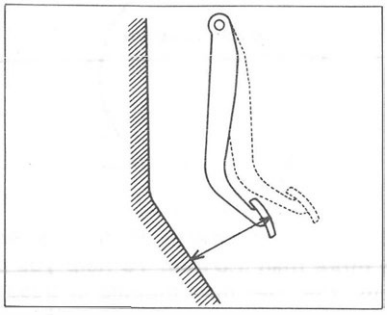
Check the inflation pressure from time to time while inflating the tire gradually, until the specified pressure is obtained.

PARKING BRAKE



Set the parking lever by pulling it all the way up and check that the rear wheels are properly locked and that the parking brake lever stop position is at its 4th ~ 7th ratchet tooth. Also check that the brakes are not dragging when the brake lever is fully returned. If any of the above is found to be wrong, take your car to your HOLDEN dealer.

BRAKE PEDAL



Check the brake pedal for the distance between the pedal and wall when the pedal is pressed with approximately 30kg (66 lbs) of force. The minimum distance required is 85mm (3.35 in).

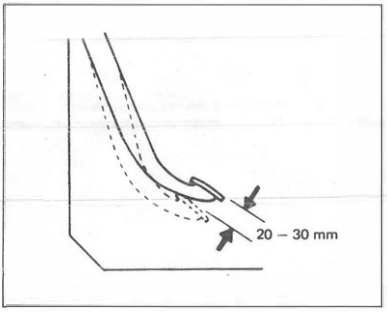
NOTE:
Measure pedal-to-metal wall distance in the pedal stroke direction with the engine ON. Be sure not to include the mat or rubber on the wall.

As this brake system has a self-adjusting feature, there is no need of pedal adjustment. If, however, the pedal distance should be found abnormal, take your vehicle to your HOLDEN dealer.

If the following troubles are found in your brake system, an inspection and repairs must be immediately performed by your HOLDEN dealer:

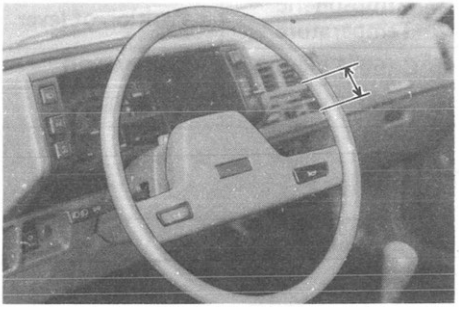
1. Poor braking performace
2. Uneven braking (Brakes not working uniformly on all wheels.)
3. Pedal stroke too large
4. Dragging brake
5. Excessive braking or wear indicator noise
6. Pedal pulsation (Pedal pulsates when pressed for braking.)

CLUTCH PEDAL



The play of the clutch pedal must be within 20–30 mm (0.8–1.2 in). If the play is more or less than the above, or clutch dragging is felt with the pedal pressed, contact a HOLDEN dealer, where it will be inspected and repaired.

STEERING



Check the play of the steering wheel by gently turning it from left to right. The play of the wheel should be below 15 mm around the circumference. When driving very slowly in an open area, turn the steering all the way to the right and to the left to check that the steering wheel turns lightly and smoothly without rattle. If anything is found to be wrong, an inspection must be performed by your HOLDEN dealer.

CHECKING INSTRUMENTS

Turn the ignition switch to the "ON" position. Check that the pilot lights come on and that the fuel meter is working properly. After starting the engine, check the charge light and the water temperature gauge. When driving off, check that the speedometer is working properly.

CHECKING LIGHTS

Turn on the switches and check that the headlights, side turn signal lights and other lights come on. Press the brake pedal and ensure that the braking lights light up. Put the shift ever into the R (reverse) position and check that the back lights come on. Finally, do not forget to check that the light lenses are not dirty or damaged.

HORN, TURN SIGNALS, WIPERS, WINDSHIELD WASHER & DE-FROSTER

Check that the horn, turn signals, wipers, windshield washer and defroster are in proper working order.

CHECKING FUEL

Make sure that there is enough gasoline for the planned driving distance.

CHECKING DOOR LOCK

Make sure that the doors lock properly.

CHECKING REAR VIEW MIRROR

Check that rear vision is clear from the driving position.

CHECKING REFLECTORS AND NUMBER PLATE

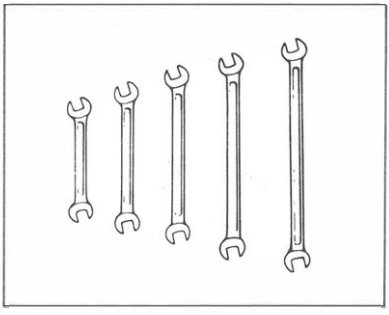
Check for dirt and damage. Check that the number plate is securely fixed and that the figures on it are clear.

CHECKING EXHAUST

Something is wrong if the exhaust is either excessively white or black. If this is the case, an inspection must be performed by your HOLDEN dealer. However, the exhaust gas may be found to be white on a cold day. This is quite normal as the exhaust gas contains water vapor that turns into mist with the exhaust system cold.

CAUTION: If you feel that there may be something wrong with any of the above inspection items, or if there is something wrong which you are unable to repair yourself, do not leave the car as it is but trust the repair works to your HOLDEN dealer.

MAINTENANCE SCHEDULE



The following table indicates the times at which regular inspections are to be carried out, in km (miles) and months. Inspections, adjustments, lubrication and other servicing must be carried out at the various intervals as indicated. These intervals must be shortened if driving is usually done under severe conditions, for example at full throttle.

Please consult your HOLDEN dealer with regard to such intervals.

CAUTION: Periodic inspection will reveal the need for replacement of one or more parts after prolonged service of your vehicle. Whenever such a need arises, it is recommended that you use HOLDEN genuine replacement parts: Avoid taking chances. Do not use imitation parts.

PERIODIC MAINTENANCE SCHEDULE

To be serviced	The services shown in this schedule up to 60,000 km (36,000 miles) are to be performed after 60,000 km (36,000 miles) at same intervals.						
	km (x 1,000)	1	10	20	30	40	50	60
	miles (x 1,000)	1	6	12	18	24	30	36
	months	1	6	12	18	24	30	36
ENGINE								
1. Water pump belt (Tension, damage)		I	–	I	–	I	–	I
*2. Valve lash (Clearance)		–	–	I	–	I	–	I
*3. Engine oil filter		–	R	R	R	R	R	R
4. Engine oil	API Grade SD, SE or SF	–	R	R	R	R	R	R
	API Grade SC	Replace every 5,000 km (3,000 miles)						
*5. Cooling system hoses and connections (leakage, damage)		–	–	I	–	I	–	I
6. Engine coolant		–	–	–	–	R	–	–
*7. Exhaust system (leakage, damage, tightness)		–	I	I	I	I	I	I
IGNITION								
8. Spark plugs		–	–	I	–	R	–	I
*9. High tension cords & distributor (Deterioration, crack, wear)		–	–	–	–	I	I	I
FUEL								
*10. Carburetor choke system (Operation)		–	–	–	–	I	–	–
11. Air cleaner filter element								
	Paved-road	–	–	–	–	R	–	–
	Dusty condition	Clean every 2,500 km (1,500 miles) or as required Replace every 40,000 km (24,000 miles). More frequent replacement if under dusty driving conditions.						
*12. Engine idle speed and idle mixture		I	I	I	–	I	–	I
*13. Fuel tank, cap & lines (leakage, damage)		I	–	–	–	I	–	–
*14. Fuel filter		–	–	–	–	R	–	–
EMISSION CONTROL SYSTEM								
*15. Fuel cut system (solenoid valve operation)		–	–	–	–	I	–	–
*16. Thermostatically controlled air cleaner (Operation)		–	–	–	–	I	–	–
*17. PCV valve (Operation)		–	–	–	–	I	–	–

To be serviced	The services shown in this schedule up to 60,000 km (36,000 miles) are to be performed after 60,000 km (36,000 miles) at same intervals.							
	km (x 1,000)	1	10	20	30	40	50	60
	miles (x 1,000)	1	6	12	18	24	30	36
	months	1	6	12	18	24	30	36
CHASSIS AND BODY								
*18. Clutch pedal (play)		I	I	I	I	I	I	I
*19. Transmission oil (leakage, level)		I	I	I	I&R	I	I	I&R
*20. Gearshift control lever & shaft		—	L	L	L	L	L	L
*21. Brake discs & pads (Thickness, wear, damage)		—	I	I	—	I	—	I
*22. Brake drums & shoes (wear, damage)		—	—	I	—	I	—	I
*23. Parking brake lever & cable (notch, damage, operation)		I	—	I	—	I	—	I
*24. Brake lines (leakage, damage clamp)		—	I	I	I	I	I	I
25. Tires & wheels (wear, damage) (rotation)		—	I	I	—	I	—	I
*26. Drive axle boot [& York] (Breakage, damage)		—	I	I	I	I [L]	I	I
*27. Suspension (Tightness, damage, rattle, breakage)		I	I	I	I	I	I	I
*28. Steering (Tightness, damage, breakage, rattle)		I	I	I	I	I	I	
*29. Door hinges assembly		—	L	L	L	L	L	L

NOTES:

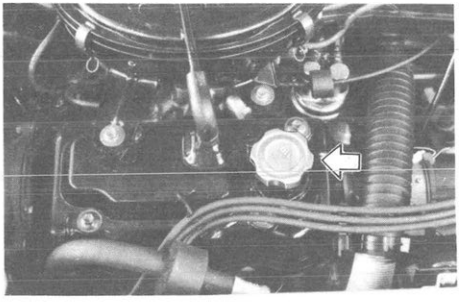
"I" : Inspect and correct or replace if necessary
"L" : Lubricate
"R" : Replace or Change

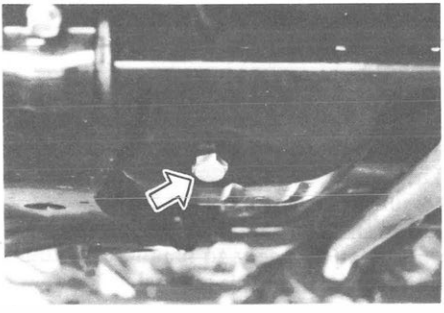
CAUTION: Whether you're an expert or do-it-yourself mechanic, HOLDEN recommends that inspection of those items marked with an asterisk (*) be performed by your authorized HOLDEN dealer. Other items are relatively easy to handle and you can accomplish work by referring to the instructions set forth in this manual.

PERIODIC MAINTENANCE SERVICE

CHANGING ENGINE OIL AND FILTER

Drain the oil and reinstall the drain plug.



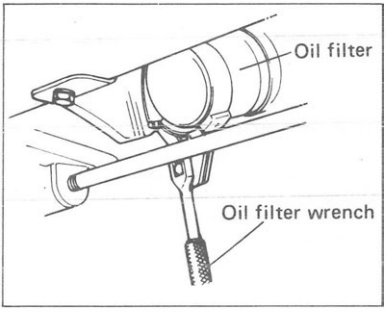


- Remove the oil filler cap.
- Place a drain pan under the drain plug.
- Using a wrench, remove the drain plug and drain out the engine oil while the engine is still warm.

WARNING: The engine oil temperature may be high enough to burn your fingers when the drain plug is loosened. Wait until the drain plug is cool enough to touch with bare hands.

- Reinstall the drain plug and gasket. Tighten the plug with a wrench.

Remove the old oil filter and install a new one.



- Using an oil filter wrench, unscrew the oil filter and remove it. It turns counterclockwise.
- Using a clean rag, wipe off the mounting surface on the engine where the new filter will be seated.
- Smear a little engine oil around the rubber gasket of the new oil filter.
- Screw on the new filter by hand until the filter gasket contacts the mounting surface.

CAUTION:
To tighten the oil filter properly, it is important to accurately identify the position at which the filter gasket first contacts the mounting surface.

- Tighten the filter 2/3 turn from the point of contact with the mounting surface using an oil filter wrench.

CAUTION:
To prevent oil leakage, make sure that the oil filter is tight, but do not overtighten it.

- Pour 4.0 L of oil through the filler hole and install the filler cap.
- With the engine running, look carefully, for leaks at the oil filter and drain plug. Run the engine at various speeds for at least 5 minutes.
- Stop the engine and wait a few minutes. Check the oil level again and add oil if necessary. Check for leaks again.

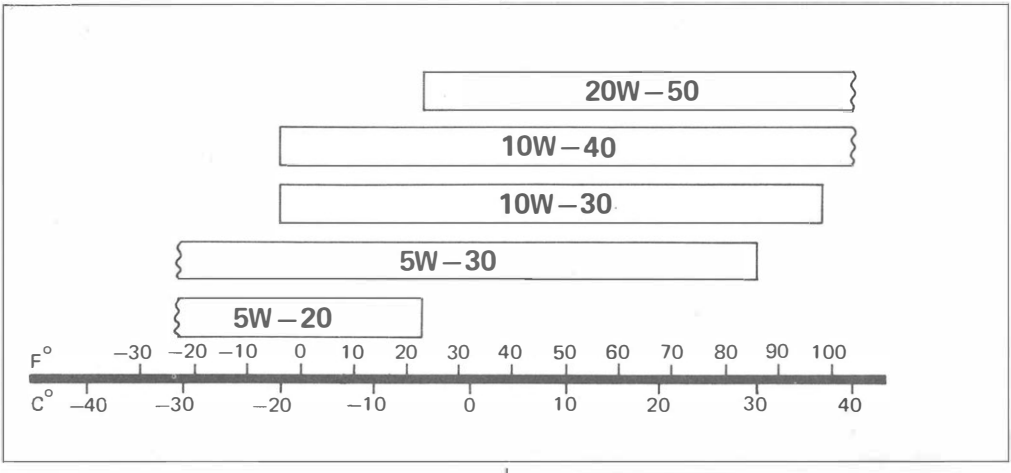
CAUTION:
When replacing the oil filter, it is recommended that you use a genuine SUZUKI replacement filter. If you use

an aftermarket filter, make sure it is of good quality.

CAUTION:
Oil leaks from around the oil filter or drain plug indicate incorrect installation or gasket damage. If you find any leaks or are not sure that the filter has been properly tightened, have the vehicle inspected by your SUZUKI dealer.

CAUTION:
Failure to follow the instructions above may result in severe engine damage.

ENGINE OIL



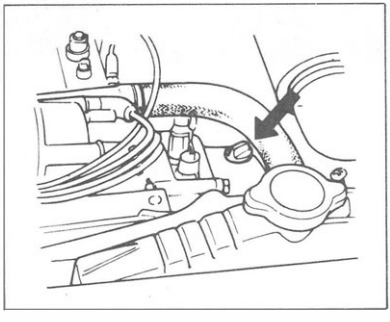
Specified oil

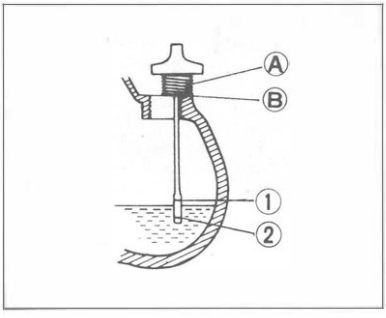
Be sure that the engine oil you use comes under the API classification of SE, SD or SF. Select the oil viscosity according to this chart:

TRANSMISSION OIL

WARNING:
The cooling fan may suddenly start under a certain coolant temperature condition. When checking the oil level, take care to keep hands, clothing, tie, scarf, etc. away from the cooling fan.

Checking oil level





Check the oil level according to the following procedures:

1) Take out the oil level dipstick from the transmission case and wipe off the oil.
2) Bring face Ⓐ of the oil level dipstick to face Ⓑ of the transmission case and check the oil level on the dipstick. Do not plug in the dipstick.

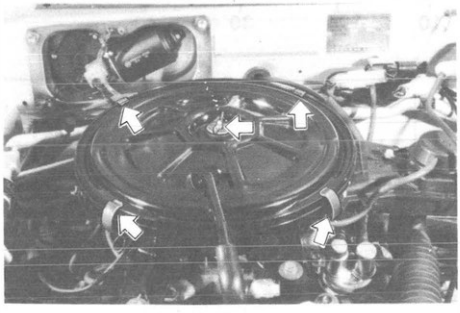
The oil level should be between FULL level line ① and LOW level line ② on the dipstick. If the oil level is found to be below the LOW level, add oil to bring up the level to the FULL level.

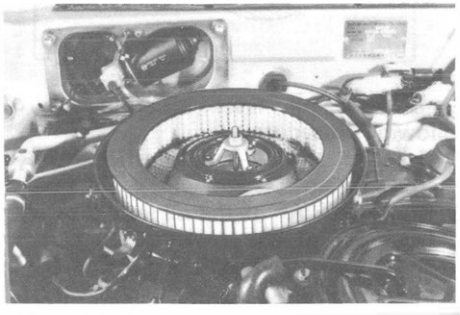
CAUTION:
- **Be sure to add oil exactly to the specified level. Overfilling will result in leakage.**
- **After checking and adding oil, be sure to insert the dipstick securely.**

Changing oil
Since special procedures, material and tool are required, it is recommended that you trust this job to your authorized HOLDEN dealer.

MODEL	8MG68
Oil capacity	2.3 L (4.9/4.0 US/Imp pt)
Type of oil	Gear oil, API GL-4, SAE 75W/85, 80W, 80W/90 or 90

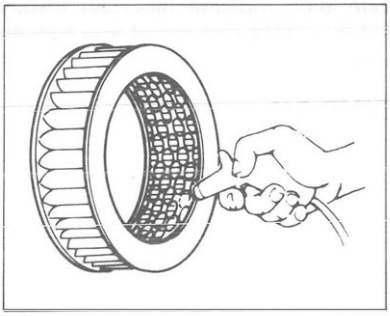
AIR CLEANER





A dry type air cleaner is used. This cleaner element can be used repeatedly by performing the following cleaning work.

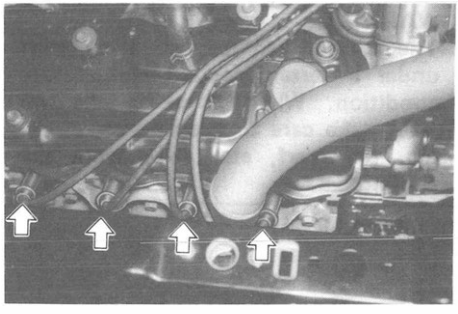
Air cleaner element inspection and servicing:
1) Take out the cleaner element from the air cleaner case.
2) Blow off dust on cleaner element by compressed air from inside element.



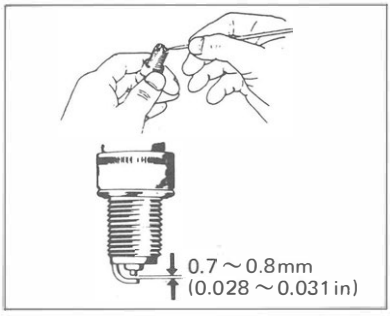
Element cleaning interval	
Paved road	Clean every 10 000 km (6 000 miles)
Dusty condition	Clean every 2 500 km (1 500 miles) or as required

NOTE: Replace every 40,000 km (24,000 miles). More frequent replacement if under dusty driving condition.

SPARK PLUGS



The standard spark plug for 8MG68 is either NGK BP6ES or NIPPON DENSO W16EX-U.



When carbon accumulates on the spark plug, a hot, strong spark may not be produced. Remove carbon deposites with a wire or pin and adjust the spark plug gap to 0.7 – 0.8 mm (0.028 – 0.031 in.).

CAUTION:
- **When installing the spark plug, screw it in with your fingers, to avoid stripping the threads, then tighten with a torque wrench to 25.0 – 30.0 N.m (2.5 – 3.0 kg-m, 18.0 – 22.0 ft-lb).**
- **Do not use a spark plug with the wrong thread size. If the spark plug threads are either protruded or receded inside the cylinder head, carbon can accumulate on the exposed thread portion and this may cause damage to the threads when removing the plug or replacing with correct plug.**

CAUTION:
If a brand of spark plug is to be used other than the NGK or NIPPON DENSO, consult your HOLDEN dealer.

	REMARKS
NGK BP6ES or NIPPON DENSO W16EX-U	Standard

ENGINE COOLANT

Recommended coolant
Use GOLDEN CRUISER 1200 properly mixed with water all year round. Change the coolant once every two years. Cooling water must be soft water – such as drinking water. Hard water (which includes well water and river water) contains many impurities (iron and the like) which may cause rust or foul inside the radiator leading to engine trouble.

GOLDEN CRUISER 1200 serves not only as an anti-freeze element, but also anti-foam, anti-rust and anti-corrosion besides being a lubricant for the water pump. To obtain these performances, it is necessary that the solution not be diluted to more than 30%.

Coolant mixture ratio

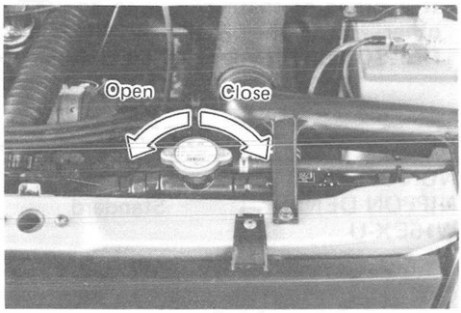
Lowest temperature	Concentration	Coolant	Water
–15°C (5°F) or above	30%	1.4L (3.0/2.5 US/Imp pt)	3.3L (7.0/5.8 US/Imp pt)
–16°C (3°F) or below	50%	2.4L (5.1/4.2 US/Imp pt)	2.3L (4.9/4.0 US/Imp pt)

When you replace the coolant, follow the instructions below.

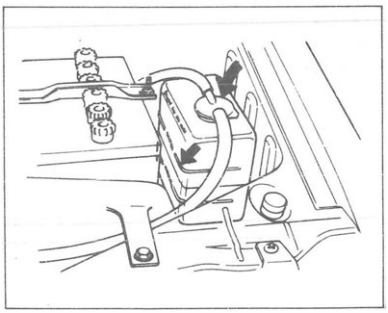
Coolant mixture ratio
Prepare the cooling solution according to the lowest ambient temperature expected in your area.

CAUTION: If you use anti-freeze and summer coolant other than GOLDEN CRUISER 1200, observe the instructions given by each manufacturer.

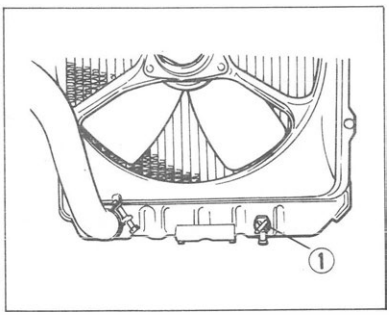
Coolant replacement



1. When the engine is cool, remove the radiator cap by turning it slowly to the left until a "stop" is felt. Do not press down while turning the cap. Wait until the remaining pressure is released, then press down on the cap and continue turning it to the left.



2. Remove the reservoir by lifting it up and drain completely.

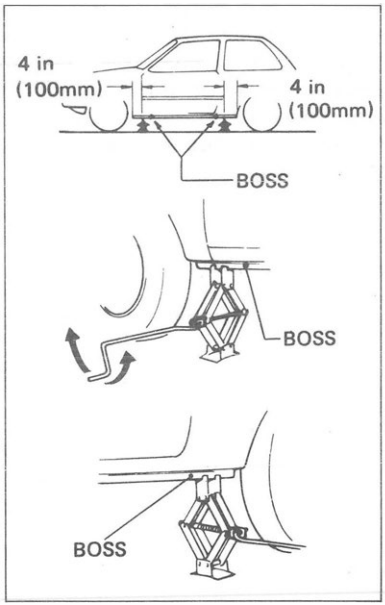


3. Loosen the radiator drain plug ① to drain coolant.
4. Fill the reservoir with coolant to the "FULL" line.
5. Tighten the drain plug ①, fill the radiator with coolant and attach the radiator cap.
6. After filling, let the engine idle for about 2 or 3 minutes to get rid of air within the cooling system.
7. Stop the engine.
8. Since the coolant level may have gone down, check and refill the radiator to the filler inlet.

CAUTION: The coolant must be replaced with the car on level ground.

WARNING: It is dangerous to remove the radiator cap when the water temperature is high, because scalding fluid and steam may be blown out under pressure. The cap should only be taken off when the coolant temperature has lowered.

JACKING INSTRUCTIONS

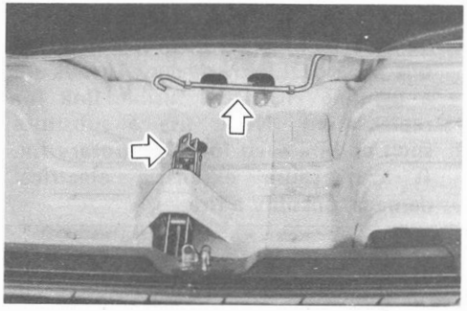


1. Place the vehicle on level, hard ground and set the parking brake firmly.
2. Set the transmission in "Reverse".

3. Block front and rear of the wheel diagonally opposite to the wheel being lifted.
4. Set the jack vertically and raise it until the jack head fits in front (for front wheel) or at the rear (for rear wheel) of the boss on the rocker flange as illustrated.
5. Operate the jack slowly and smoothly until the tire clears the ground. Do not raise more than necessary.

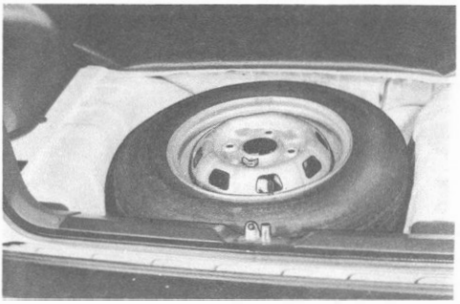
WARNING:
(1) Care should be taken to check that the vehicle is being raised vertically during the "jacking-up" process. If the jack begins to "tilt", lower the jack to correct the position.
(2) Never jack-up the vehicle on an inclined surface.
(3) To avoid chance of personal injury, never allow anyone to get under the vehicle while being jacked up.

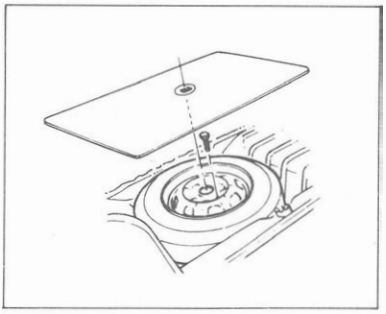
Stowage of jack and jack handle



Jack and jack handle are stowed in the luggage compartment behind the rear seat. To remove the jack, turn its shaft counterclockwise. To stow the jack, place it as shown in the photo and turn the shaft clockwise until the jack is fixed firmly.

Spare wheel stowage



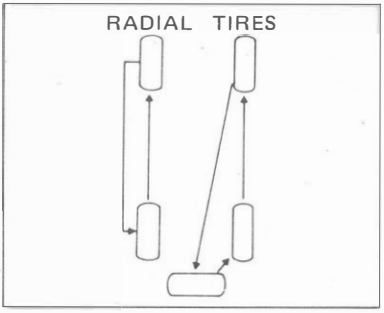


The spare wheel is stowed in the luggage compartment behind the rear seat.

CAUTION:
At least monthly, check the spare tire to be sure that it is stowed securely and properly inflated.

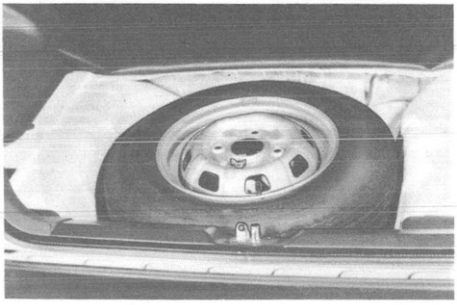
TIRES

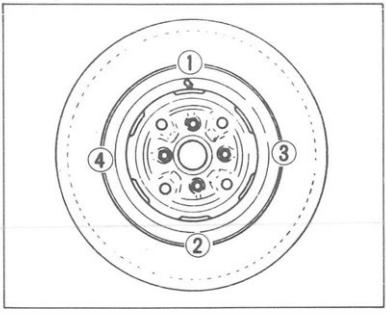
Tire rotation



To avoid unbalanced wear of your tires and to prolong their lifespan, rotate tires, as illustrated. Tires should be rotated every 10 000 km (6 000 miles) as recommended in the periodic maintenance schedule. After rotation, adjust the front and rear tire pressures to the specification (see label on the drivers door).

Changing wheel





Follow the procedure below.

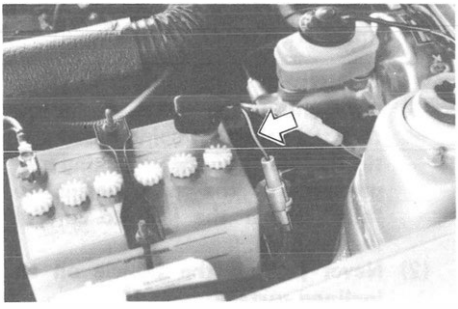
1. Remove jack, tools and spare wheel from the vehicle.
2. Loosen, but do not remove the wheel nuts.
3. Jack up the vehicle (follow the "Jacking instructions" in this manual).
4. Remove the wheel.
5. Install the wheel and replace the wheel nuts with their cone shaped end facing the wheel. Tighten each nut slightly until the wheel is seated on the hub.
6. Lower the jack and fully tighten the nuts in a criss-cross fashion by using a wrench.

CAUTION:
Whenever a wheel is changed, always remove any corrosion that may be present inside the wheel and wheel mounting surface on the vehicle.

FUSES

There are two basic types of fuse. One is the main fuse (fusible link), which takes the current directly from the battery. The other is the fuse present in each electrical circuit.

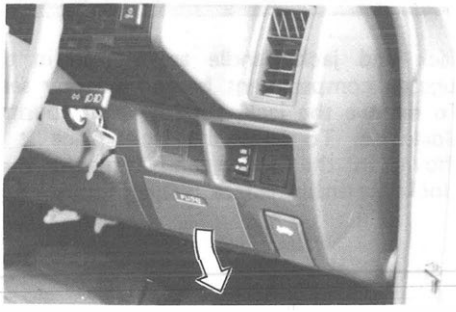
Main fuse (fusible link)



As mentioned above, the fusible link takes current directly from the battery. When this link has blown, no electrical component will function. If this happens, check the fusible link located at the battery positive terminal. When replacing the fusible link, use a HOLDEN genuine replacement.

CAUTION: If the fusible link blows, be sure to have an inspection carried out by a HOLDEN dealer. Always use a genuine HOLDEN fusible link for replacement. Never use a subsitute such as wire even for a temporary fix. It can cause extensive electrical damage, possibly a fire.

Fuse box



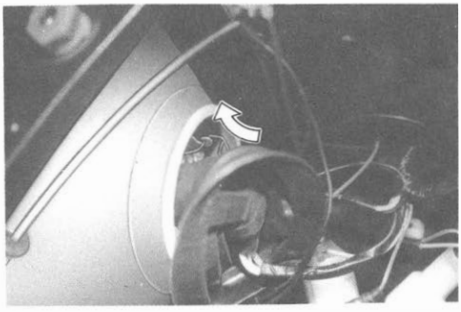
The fuse box is located under the driver's side of the instrument panel. To remove the fuse, simply pull out after removing the fuse box cover. To identify the amperage and location, refer to the fuse list shown on the back of the fuse box cover.

CAUTION: Always be sure to replace a blown fuse with a fuse of the correct amperage. Never use a substitute, for example aluminum foil or wire, to replace a blown fuse. If the spare fuse installed blows in a short period of time it means that you could have a major electrical problem. You should consult your HOLDEN dealer immediately.

NOTE:
Make sure to replace the spare fuses if they are used so that the fuse box cover always carries three spare fuses, 10A and 15A.

BULB REPLACEMENT

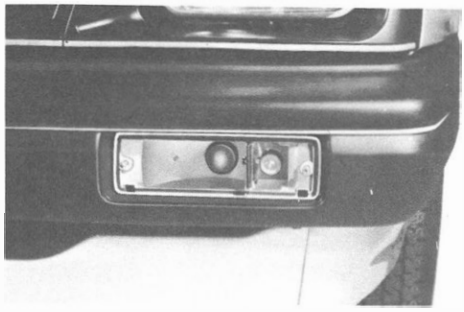
Headlights



Open the engine hood. Remove the rubber from the inside and then unhook the lever indicated with an arrow in the photo, and the bulb can be taken out.

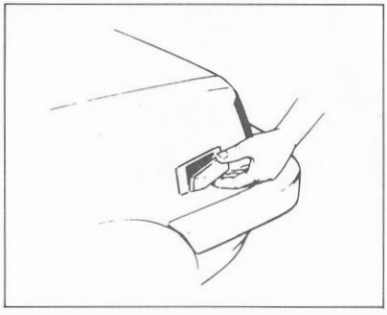
CAUTION: Adjustment of the headlight beam is necessary after replacing the headlight unit. If you have performed the replacement work yourself, make sure you take the vehicle to your authorized HOLDEN dealer for proper adjustment.

Front Turn Signal and Clearance Lights



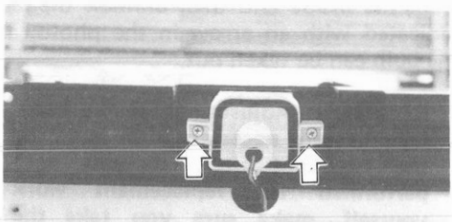
Undo the two screws holding in the lens and remove it. The bulb located closer to the vehicle center is the turn signal light, and that on the outside is the clearance light. When replacing a bulb take it out by pushing it in and turning it counterclockwise. A new bulb is installed by performing the same action in reverse order.

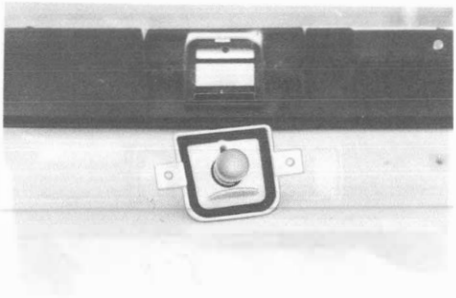
Side Turn Signal Light



Pull out the lens by hand. The bulb can be removed by pushing it in and turning it counterclockwise. A new bulb is installed by performing the same actions in reverse order.

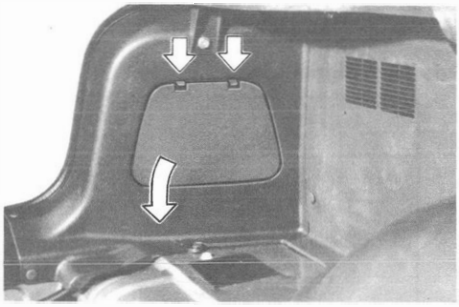
License Plate Light

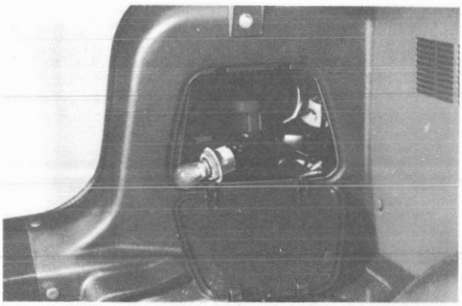




Undo the two screws holding in the lens and remove it. The bulb can be removed by pushing it in and turning it counterclockwise. A new bulb is installed by performing the same actions in reverse order.

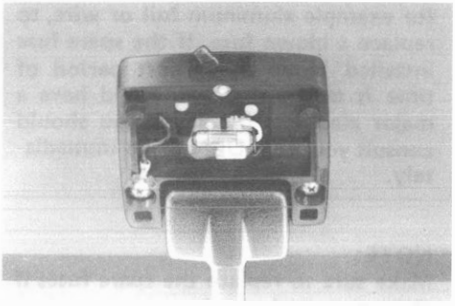
Tail/Brake, Rear Turn Signal and Back-up Lights





To remove these bulbs, first open the rear service lid by pushing on the stopper tabs as shown in the photo. Remove the socket by turning it counterclockwise and remove the bulb from the socket by twisting it counterclockwise while pushing. Restore the removed parts in the reverse sequence of removal.

Interior Light



Pull down on the rear part of lens to remove it. The bulb can be removed by simply pulling it down. When replacing the bulb, make sure that the contact springs are holding the bulb securely.

APPEARANCE CARE

CAUTION:
When cleaning the interior or exterior of the vehicle, NEVER USE volatile solvents such as lacquer thinners, gasoline, benzene or such cleaning materials as bleaches, strong household detergents. Some of the above materials may be poisonous or flammable and their improper use may cause personal injury or damage to the vehicle.

CLEANING INTERIOR

Vinyl Upholstery
Prepare a solution of soap or neutral detergent mixed with warm water. Apply solution to the vinyl with a sponge or soft cloth and let it soak for a few minutes to loosen dirt. Rub the surface with a clean, damp cloth to remove dirt and soap solution. If some dirt still remains on the surface, repeat the procedure.

Fabric Upholstery
Remove loose dirt by vacuum cleaner. Rub the stained area with a clean cloth made damp with soap solution and then wipe by rubbing with another cloth slightly wet with water to absorb and remove soap. Repeat this until the stain is cleaned. You may use commercially available fabric cleaner. In this case, carefully follow the manufacturer's instructions and precautions.

Seat Belts
Clean seat belts with mild soap and water. Do not use a bleach or dye on the belts—it may weaken them.

Vinyl Floor Mats
Ordinary dirt can be removed from vinyl with water and mild soap. Use a brush to help loosen dirt. After dirt is loosened, rinse the mat thoroughly with water and dry it in the shade.

Carpets
Remove dirt and soil as much as possible by vacuum cleaner. Rub the stained area with clean cloth made damp with soap solution and then wipe by rubbing with another cloth slightly wet with water to absorb and remove soap. Repeat this until the stain is cleaned. You may use commercially available carpet cleaners. In this case, carefully follow the manufacturer's instructions and precautions.

CLEANING EXTERIOR

Dirt or any other foreign material on the painted surfaces can cause such problems as the following, as time goes on:

1. Faded paint.
2. Body rust due to deteriorated paint film.
3. Body rust due to scratches possibly caused by dirt or foreign material.
4. Body rust due to contact with damp dirt trapped in the body.

Therefore, it is important that your HOLDEN vehicle should always be kept clean and free from dirt in order to maintain the paint in a good condition and to protect the entire body against corrosion.

Washing
When washing the vehicle, follow the instructions below.

1. Flush the underside of body and wheel housings with pressurized water to remove mud and debris. Use plenty of water to loosen and thoroughly remove dirt.
2. Remove dirt and mud from the body exterior with running water. You may use a soft sponge, brush or the like with water. Do not use hard materials which can scratch the paint.
3. Wash the entire exterior with neutral detergent or car-wash soap lightly rubbing with sponge or soft cloth. The sponge or cloth should be frequently soaked in the solution.

CAUTION:
When using commercial car-wash products, observe the precautions as specified by the manufacturers. Never use strong household detergents or soaps.

4. Once the dirt has been completely removed, wash off the detergent with the running hose water.
5. After rinsing, wipe off the body lightly with a wet chamois or cloth and allow the body to dry in the shade.
6. Check carefully for damage to the painted surfaces. If any is found, "touch-up" the damage following the procedure below.
   (1) Clean all damaged spots and allow them to dry.
   (2) Stir the paint and "touch-up" the damaged spots lightly with a small brush.
   (3) After painting, allow them to properly dry.

WARNING:
After washing, check the brakes are dry. If the brakes are not dry, dry them by gently and repeatedly applying brakes while driving at low speed.

Waxing

After washing the vehicle, waxing and polishing are recommended to further protect and beautify the paint.

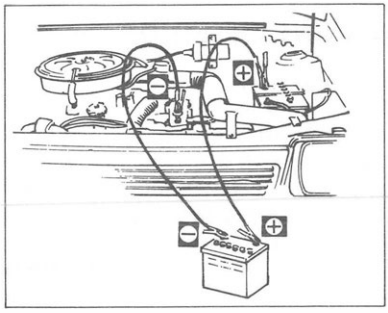
* Only use waxes and polishes of good quality.
* When using waxes and polishes, observe the precautions specified by the manufacturers.
* Chrome parts should also be waxed.

BREAKDOWNS AND EMERGENCY REMEDIES

When starter does not operate:

1. Try turning the ignition switch to the "START" position with the headlights turned on to determine the battery condition. If the headlights go dim excessively or go off, it usually means that either the battery has run down or battery terminal contact is poor. Recharge the battery or correct the contact when the cause is determined.
2. If the headlights remain bright, check the fuses. If the trouble persists, take your vehicle to your authorized HOLDEN dealer as there may be a major electrical problem.

Jump starting instructions:



If the engine will not start due to a discharged battery, a well charged, separate battery or one in another vehicle may be connected to the system to help supply enough electric energy.

WARNING:
Batteries produce explosive gasses, contain corrosive acid and supply levels of electrical current high enough to cause burns. To lessen the chance of personal injury when working near a battery, follow the instructions below.
- **Always shield your eyes and avoid leaning over the battery.**
- **Do not expose the battery to open flames or sparks.**
- **Do not allow battery acid to contact eyes or skin. If any part of your skin does come into contact with battery acid, wash the affected area with water immediately and thoroughly, and get medical help.**

When connecting a battery for jump starting, follow the instructions below.

1. Place a good 12V battery close to the vehicle so that the jumper cables will reach the vehicle's battery. When using a battery installed on another vehicle, bring both the vehicles close to each other but do not let the vehicles touch.
2. Clamp one end of the first jumper cable to the positive (+) terminal on one battery and the other end to the positive (+) terminal on the other battery.
3. Clamp one end of the second jumper cable to the negative (−) terminal of the good battery and the final connection to an unpainted, heavy metal part of the engine that has the discharged battery. Make sure that the cables are not on or near pulleys, belt or fans.
4. Start the engine of the vehicle with the good battery. Then, start the engine that has the discharged battery.
5. Remove the jumper cables by reversing the above installation sequence.

When engine is flooded:
If the engine is flooded with gasoline, the engine may be hard to start. In that case, press the accelerator pedal all the way down and hold, but do not pump. Turn the engine until it fires, clears the excess gasoline and runs smoothly. (But, do not operate the starter motor for more than 10 seconds).

When engine overheats:
The engine could overheat temporarily during severe driving conditions. If the engine coolant temperature gauge indicates overheating during driving:

- Turn off airconditioner, if equipped;
- Take the vehicle to a safe place and park; and
- Let the engine run at normal idle speed for a few minutes until the gauge temperature goes down to the safe zone.

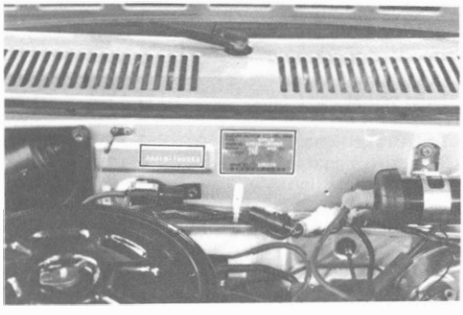
If the temperature does not go down, check the following:

WARNING:
If you see or hear escaping steam, stop the vehicle and turn off the engine immediately to let it cool. When no steam can be seen or heard, open the hood and check if the coolant is still boiling. If such is the case, wait until it stops.

- Check that water pump belt and pulleys are not damaged or slipping, and the fan operates with the ignition switch on. If any abnormality is found, adjust or correct the trouble.
- Check the coolant level in the reservoir. If it is found to be lower than the "LOW" line, look for leaks at the radiator, water pump, and radiator and heater hoses. If you locate the leaks that may have caused the overheating, do not run the engine until these problems have been corrected.
- If you do not find a leak, carefully add coolant to the reservoir and then radiator, if necessary. (See "ENGINE COOLANT" in "PERIODIC MAINTENANCE SERVICE" section for proper antifreeze and mixture.)

VEHICLE IDENTIFICATION

CHASSIS SERIAL NUMBER



The chassis serial number is stamped on the body as shown in the photo. The chassis and/or engine serial numbers are used to register the vehicle. They are also used to assist your dealer when ordering or referring to special service information. Whenever you have occasion to consult your HOLDEN dealer, remember to identify your vehicle with this number. Should you find the number difficult to read, you will also find it on the identification plate.

ENGINE SERIAL NUMBER

The engine serial number is stamped on the cylinder block.

ITEM	8MG68
DIMENSIONS	
Overall length	3 685 mm (145.1 in)
Overall width	1 545 mm (60.8 in)
Overall height	1 365 mm (53.7 in)
Wheelbase	2 345 mm (92.3 in)
Tread: front	1 330 mm (52.4 in)
rear	1 300 mm (51.2 in)
Ground clearance	180 mm (7.1 in)
WEIGHT	
Curb weight	710 kg (1 565 lbs)
Gross axle weight rating: front	600 kg (1 323 lbs)
rear	640 kg (1 411 lbs)
Gross vehicle weight rating	1 130 kg (2 491 lbs)
Max. seating capacity	5 persons
ENGINE	
Type	Four-stroke cycle, water-cooled
Number of cylinders	4
Lubrication system	Wet sump
Bore	74.0 mm (2.70 in)
Stroke	77.0 mm (3.03 in)
Piston displacement	1 324 cm^3 (80.8 cu. in)
Compression ratio	9.5 : 1 .... *
	8.9 : 1
Carburetor	AISAN two barrel down draft
Air cleaner	Dry type, polyester fiber element
ELECTRICAL	
Ignition timing	8° B.T.D.C. at 700 r/min
Standard spark plug	NGK BP6ES or NIPPON DENSO W16EX-U
Head light	12V 60/55W
Turn signal light	12V 21W
Clearance light	12V 5W
Tail/Brake light	12V 5/21W
Side turn signal light	12V 5W
Licence plate light	12V 7.5W
Back up light	12V 21W
Interior light	12V 5W
Meter pilot lights	12V 3.4W
Main fuse	0.5 mm^2 (fusible link)
Fuse box	10/10/10/10/5/5/5/15/15/15/10/10/10/15A
Battery	12V 126kC (35 Ah)/20HR
Starter	Magnetic shift type
Generator	Alternator

* .... High octane gasoline vehicle (identified by a CAUTION LABEL attached inside of the fuel lid.)

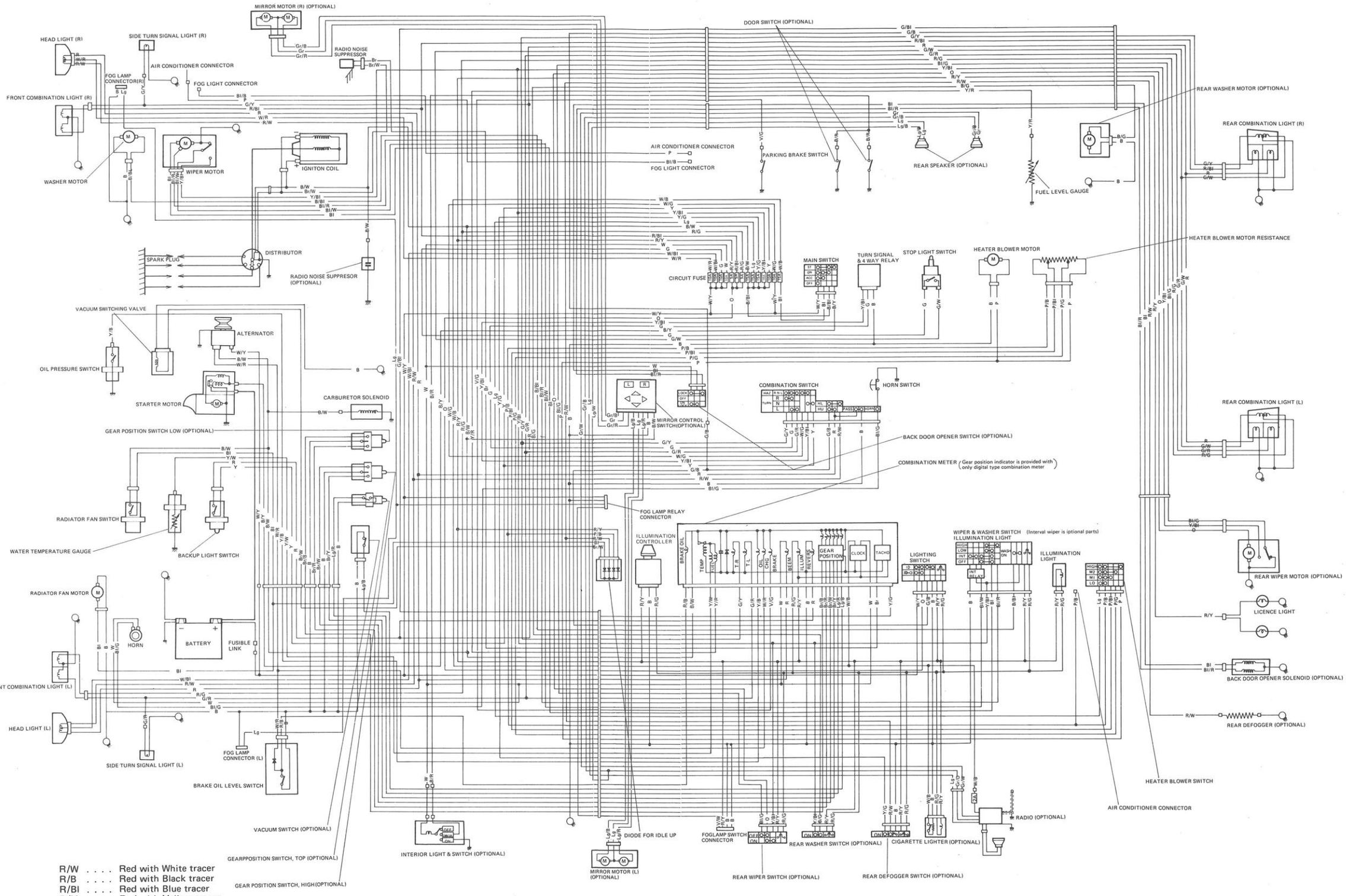
ITEM	8MG68
TRANSMISSION	
Clutch type	Dry, single disc
Transmission type	5-forward all synchromesh, 1 reverse
Final reduction ratio	3.523
Gear ratios, low	3.416
2nd	1.894
3rd	1.280
4th	0.914
5th	0.757
reverse	2.916
WHEEL AND SUSPENSION	
Tire size, front and rear	145 SR 12
Tire pressure: front	220 kPa [2.2 kg/cm^2, 31 psi]
rear	220 kPa [2.2 kg/cm^2, 31 psi]
Suspension type: front	Strut
rear	Leaf spring
STEERING	
Turning radius	4.6 m (15.1 ft), 4.8 m (15.7 ft) 5-door
Steering gear box	Rack and pinion
Toe-in	0 ~ 4 mm (0 ~ 0.16 in)
Camber angle	1°00′
Caster angle	3°10′
Trail	14 mm (0.55 in)
King pin angle	12°50′
BRAKE SYSTEM	
Type	4-wheel, hydraulic, power assisted
Wheel brake: front	Disk brake (floating caliper rype)
rear	Drum brake (leading and trailing)
Parking brake	Mechanical, actuated on rear wheel
CAPACITIES	
Cooling solution	4.7 L (9.9/8.3 US/Imp pt)
Fuel tank	31 L (8.2/6.8 US/Imp gal)
Engine oil	4.0 L (8.5/7.0 US/Imp pt)
Transmission oil	2.3 L (4.9/4.0 US/Imp pt)

NOTE:
Specifications are subject to change without notice.

FUEL CONSUMPTION	
CITY CYCLE	HIGHWAY CYCLE
LITRES PER 100KM	LITRES PER 100KM
6.4	4.4

*** These data are measured by AS 2077.**

WIRING DIAGRAM



WIRING COLOR

Or	Orange	R/W	Red with White tracer
Br	Brown	R/B	Red with Black tracer
W	White	R/Bl	Red with Blue tracer
B	Black	R/Y	Red with Yellow tracer
R	Red	Y/W	Yellow with White tracer
Y	Yellow	Y/B	Yellow with Black tracer
G	Green	Y/R	Yellow with Red tracer
Bl	Blue	Y/Bl	Yellow with Blue tracer
W/B	White with Black tracer	G/W	Green with White tracer
W/R	White with Red tracer	G/R	Green with Red tracer
W/G	White with Green tracer	G/Y	Green with Yellow tracer
W/Bl	White with Blue tracer	Bl/W	Blue with White tracer
B/W	Black with White tracer	Bl/R	Blue with Red tracer
B/Bl	Black with Blue tracer	B/Y	Black with Yellow tracer

Prepared for

GENERAL MOTORS HOLDEN'S SALES PTY. LTD.

Service Department

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